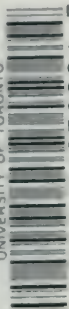


# BOOKS 1907 INDEX

UNIVERSITY OF TORONTO



3 1761 01650691 7

























MERCK'S 1907 INDEX







~~M. P. H. A.~~  
~~M~~  
MERCK'S 1907 INDEX

[THIRD EDITION]

AN ENCYCLOPEDIA FOR THE CHEMIST  
PHARMACIST AND PHYSICIAN

STATING THE

NAMES AND SYNONYMS; SOURCE OR ORIGIN; CHEMICAL NATURE AND FORMULAS; PHYSICAL FORM, APPEARANCE AND PROPERTIES; MELTING AND BOILING POINTS; SOLUBILITIES; SPECIFIC GRAVITIES AND METHODS OF TESTING; PHYSIOLOGICAL EFFECTS; THERAPEUTIC USES; MODES OF ADMINISTRATION AND APPLICATION; ORDINARY AND MAXIMUM DOSES; INCOMPATIBLES; ANTIDOTES; SPECIAL CAUTIONS; HINTS ON KEEPING AND HANDLING, ETC.

OF THE

CHEMICALS AND DRUGS USED IN CHEMISTRY  
MEDICINE AND THE ARTS

438966  
24.9.45

ST. LOUIS, MO.

MERCK & CO., NEW YORK  
15 UNIVERSITY PLACE

RAHWAY, N. J.



RS

51

M47

1907

cop. 1

COPYRIGHT, 1907, BY MERCK & CO., NEW YORK.



## PREFACE

In presenting *Merck's 1907 Index* we need but refer to the popularity of previous editions and to point to the title page of the work, which fully shows its scope and defines its field of usefulness to the *chemist*, the *pharmacist*, and the *physician*—in other words, to the users of drugs and fine chemical products.

In order to bring the Index up to date in this edition we have added the newest products, adopted the latest nomenclature, consulted the most modern authorities, and, for the Merck products, verified the data in our laboratories and our works.

Furthermore, we have added the crude drugs of commerce and have indicated under each drug the dose of its extracts, tinctures, fluid extracts, etc., instead of grouping all extracts, tinctures, etc., together as in the previous editions of the Index. We have given the specific gravities at 15° C.; in many cases, following the U. S. Pharmacopœia, we have also given them at 25° C.

As the Index is not intended to be a price-list we give no prices, but instead we give what may be called *comparative values*. That is to say, wherever possible we have placed a number opposite the name of the product, and if such a number is compared with the numbers at the foot of each left-hand page the comparative value of the article so numbered will be at once apparent. For instance, Duboisine Sulphate Merck bears the number 875, its value lies, therefore, between that of Gold Tribromide Merck (the comparative value of which is 570) and that of Eserine Sulphate Merck (the comparative value of which is 1111). Or again, if neither of these two products suggests anything very definite, 875 can be considered as approximately  $4 \times 225$ , or  $16 \times 55$ , or  $20 \times 44$ , or  $35 \times 25$ , or  $80 \times 11$ , or  $175 \times 5$ , or  $220 \times 4$ , or  $300 \times 3$ , or  $400 \times 2$ , or  $900 \times 1$ ; and consequently the value of Duboisine Sulphate—bearing this number 875—is about 4 times that of Aconitine, 16 times that of Morphine Sulphate, 20 times that of Veratrine, 35 times that of Strychnine, 80 times that of Silver Nitrate, 175 times that of Iodoform,



220 times that of Potassium Iodide, 300 times that of Guaiacol, 400 times that of Salol, and 900 times that of such cheaper articles as Cerium Oxalate or Calcium Hypophosphite. Some of these products are familiar to every one and can, therefore, be used as an easy basis for comparison.

Another point to which we wish to draw attention, as we were questioned frequently in regard to it in connection with previous editions of the Index, is the means by which products may be known to be obtainable of the *Merck brand*. For that purpose we have put the designation **Merck** after the name of every product procurable of the *Merck brand*. On page 299, for instance, Nicotine and its salts; Nigrosine; Niobium and its compounds; the various isomers of Nitraniline; and Nitranisol (ortho), are to be had of the *Merck brand*; whereas *Nigella Damascena*, *Nigella Sativa*, Nikiforoff's Borax-Carmine, and Nirvanin are not. Merck's products being the standard, we cannot recommend too strongly for the sake of accuracy of results and uniformity of action, that when ordering such articles as bear this designation *Merck*, you should always

**Specify MERCK'S** on your orders.

JULY, 1907.

MERCK & CO.



# ABBREVIATIONS

For economy of space some participles used in the descriptive matter of this work have been so abbreviated as to retain merely the root-form of the verb; as, color.=coloring, etc. Other contractions of analogous character are also used, as, solut's = solutions. The meaning of such abbreviations is so apparent that they are not recorded in the table below.

## A

A	alcohol.
ab	about.
abn	abnormal.
abs	{ absence,
	{ absolute.
absol.	absolutely.
absorp.	absorption.
abt.	about.
ac	acute.
acc.	according to.
accel.	accelerate.
acic	acicular.
acidul.	acidulous, acidulate.
act.	active, action.
add.	adding, addition.
adm	{ administer,
admin.	{ administration.
adv	adventitious.
affect	affection, affectionous.
agre.	agreeable.
Ait.	Aiton.
albumin.	{ albuminous,
	{ albuminuria.
alc.	alcohol.
alcoh.	alcoholic.
alim.	alimentary.
alkal.	alkalies, alkaline.
alk'd.	alkaloid.
aln	almost.
alter	alterative.
amenor.	amenorrhœa.
amm.	ammonia, ammonium
amorph.	amorphous.
am't.	amount.
anal	analysis, analytical.
analg.	analgesic.
anat.	anatomical.
Andr	Andrews.
anes, or anesth	anesthetic.
ang.	angular.
anhyd.	anhydrous.
anod.	anodyne.
antac.	antacid.
anthelm.	anthelmintic.
antiblenmor.	antiblenorrhagic.
anticatar.	antycatarhal.
antierypt.	antieryptogamic.
antidiab.	antidiabetic.
antidip.	antidiphtheritic.
antiem.	antiemetic.
antiepil.	{ antiepileptic.
antiepilep.	{ antiepileptic.
antihydr.	antihydrotic.
antihyst.	antihysterie.
anim.	antimony.
antineural.	antineuralgic.
antipar.	antiparasitic.
antiper.	antiperiodic.
antiphlog	antiphlogistic.

antipur	antipurritic.
antiputres	antiputrescent.
antipyr	antipyretic.
antirheum.	antirheumatic.
antiscor.	antiscorbutic.
antisept.	antiseptic.
antispasm.	antispasmodic.
antisud.	antisudorific.
antisyp.	antisymphilitic.
antituberc.	antitubercular.
antizym.	antizymotic.
aper.	aperient.
aphrod.	aphrodisiac.
app.	apparatus.
appl.	application.
approx.	approximates.
aq.	aqua.
aqu.	aqueous.
Arn.	Arnott.
arom.	aromatic.
ars.	arsenic.
artic.	articular.
artif.	artificial.
assimil.	{ assimilable,
	{ assimilation.
asth.	asthma.
astring.	astrigent.
atm.	{ atmosphere,
	{ atmospheric.

## B

B.	benzene (benzol).
b.	born.
b. p.	boiling point.
bacteric.	bactericide.
bacteriol.	{ bacteriological,
	{ bacteriology.
Bart.	Barton.
batt.	battery.
Bé.	Baumé.
bec.	becomes.
bef.	before.
Benth.	Bentham.
benz.	benzoate.
Berg.	Bergius.
bicarb.	bicarbonate.
bism.	bismuth.
bisulph.	bisulphide.
blennor.	blennorrhagia.
bot.	bottle.
botan.	botanical.
bot's.	bottles.
brill.	brilliant.
brit.	brittle.
bronch.	{ bronchial,
	{ bronchitis.
broncho.	bronchocele.
Burch.	Burchell.
Burm.	Burmah.



## C

C.....	{ carbon, centigrade, chloroform.
calc.....	calcium.
caps.....	capsules.
car.....	caries.
carcin.....	carcinoma.
card.....	cardiac, -itis.
caref.....	carefully.
carin., or carmin.....	carminative.
Casar.....	Casaretti.
cath.....	cathartic.
caut.....	{ caution, cautious, cautiously.
Cav.....	Cavanilles.
Ce.....	cubic centimeter.
cellul.....	cellulitis.
cereb.....	cerebral.
cert.....	certain.
Cham.....	Chamisso.
charact.....	characteristic.
chem.....	chemical, chemistry.
chg.....	change.
chilbl.....	chilblains.
chlorof.....	chloroform.
choc.....	chocolate.
chol. inf.....	cholera infantum.
cicatr.....	{ cicatrization, cicatrizing.
cloud.....	cloudiness.
Colebr.....	Colebrooke.
collod.....	collodion.
color.....	colorant, coloring.
colorl.....	colorless.
comb.....	combination, combined.
combust.....	{ combustion, combustible.
com'l.....	{ commercial.
comm'l.....	{ commercial.
comp.....	composition, compound.
compl.....	completely.
compos.....	composition.
compress.....	compression.
conc.....	concentrated.
concent.....	concentration.
conch.....	conchoidal.
condens.....	condensation.
condit.....	condition.
condyl.....	condyloma, -mata.
confee.....	confection.
congest.....	congestion.
conglom.....	conglomerate, -ation.
constip.....	constipation.
constit.....	constituent.
consumpt.....	{ consumption, consumptives.
cont.....	contain.
cont'g.....	containing.
conv.....	convert.
convalesce.....	{ convalescence, convalescents.
convuls.....	convulsions.
corresp.....	corresponding.
corr.....	{ corrosive.
corros.....	{ corrosive.
counterirrit.....	counterirritant.
cov.....	covered.

cruc.....	crucible.
cryst.....	{ crystal, crystalline, crystallization.
cultiv.....	cultivated.
cumul.....	cumulative.
cutan.....	cutaneous.
cylind.....	cylindrical.
cyst.....	cystitis.

## D

d.....	died.
debil.....	debility.
debilit.....	{ debilitated, debilitating.
De C.....	De Candolle.
decoct.....	decoction.
decomp.....	{ decomposed, decomposition.
decomp'g.....	decomposing.
decr.....	decrease.
defect.....	defective.
defin.....	definite.
deflag.....	deflagrate.
dehydr.....	dehydration.
deliq.....	deliquescent.
delir.....	delirious, delirium.
demule.....	demulcent.
deodor.....	{ deodorizing, deodorizing.
deoxidiz.....	deoxidizing.
depil.....	depilatory.
deriv.....	derivative.
Desf.....	Desfontaines.
desic.....	desiccated, desiccant.
destruct.....	destructive.
detect.....	detecting, detection.
determ.....	determination.
diab.....	diabetes.
dialyz.....	dialyzing.
diaph., or diaphor.....	diaphoretic.
diar.....	diarrhea.
diath.....	diathesis.
differ.....	difference, different.
different.....	differentiating.
diffic.....	difficult, difficulty.
diffus.....	diffusible, diffusion.
dil.....	dilute, diluted.
diox.....	dioxide.
diphth.....	diphtheria.
dis.....	disease.
disagre.....	disagreeable.
disap.....	disappearance.
disc.....	discoloration.
disch.....	discharge.
discov.....	discovering.
discut.....	discontent.
dis'd.....	diseased.
disinf.....	disinfectant.
disp.....	dispense.
diss.....	{ dissolves, dissolving.
distil.....	{ distillate, distillation, distilling.
disulph.....	disulphide.
diur.....	{ diuretic.
diuret.....	{ diuretic.
dress.....	dressings.



# MERCK'S 1907 INDEX

dysent ..... dysentery.  
 dysmenor ..... dysmenorrhea.  
 dyspep ..... dyspepsia.

## E

E ..... { ether,  
                   { earths.  
 cara ..... earache.  
 eas ..... easily.  
 eez ..... eczema.  
 eezemat ..... eczematous.  
 effervesc ..... { effervescence,  
                   { effervescent,  
                   { effervescing.  
 effie ..... { efficacious, efficient.  
 efflor ..... effloresce.  
 effloresc ..... efflorescence,  
                   { efflorescent.  
 effus ..... effusion.  
 elec ..... electric.  
 elim ..... eliminate.  
 emmen ..... emmenagogue.  
 emphys ..... emphysema.  
 emuls ..... emulsion.  
 Endl ..... Endlicher.  
 endometr ..... endometritis.  
 Engl ..... Engler.  
 enlargem ..... enlargement.  
 epil ..... epidermis.  
 epist ..... epistaxis.  
 epith ..... epithelium.  
 eq ..... equal.  
 eruct ..... eructation.  
 erupt ..... eruption.  
 erysip ..... erysipelas.  
 eryth ..... erythema.  
 eschar ..... escharotic.  
 essent ..... essential.  
 ether ..... ethereal.  
 evap ..... { evaporate,  
                   { evaporating,  
                   { evaporation.  
 evol ..... evolution.  
 exc ..... excess.  
 exceed ..... exceedingly.  
 excit ..... { excitant,  
                   { excitation,  
                   { excitement,  
                   { exciting.  
 exhaust ..... exhaustion.  
 expector ..... expectorant.  
 expell ..... expelling.  
 expos ..... exposure.  
 expr ..... expressed.  
 extern ..... { external,  
                   { externally.  
 extr ..... extract.  
 ext'd ..... extracted.  
 exub ..... exuberant.  
 exud ..... exudation.

## F

f ..... for.  
 Fabr ..... Fabricius.  
 fail ..... failure.  
 fbl ..... feeble.  
 febr ..... febrile.

febrif ..... febrifuge.  
 ferment ..... fermentation.  
 ferricy ..... ferricyanide.  
 ferrocy ..... ferrocyanide.  
 ferrug ..... ferruginous.  
 fev ..... fever.  
 fl ..... fluid.  
 flatul ..... { flatulence,  
                   { flatulent.  
 flavor ..... flavoring.  
 floe ..... flocculent.  
 flr ..... flower.  
 fluorese ..... fluorescence.  
 F. Muell ..... Ferd. v. Mueller.  
 faintly ..... faintly.  
 fr ..... from.  
 Fr ..... Fries.  
 fract ..... fractional.  
 frag ..... fragile.  
 fragr ..... fragrant.  
 fum ..... fuming.  
 furunc ..... furuncular.  
 fus ..... fusing, fusion.

## G

G ..... glycerin.  
 Gaert ..... Gaertner.  
 gangr ..... gangrene, gangrenous.  
 gast ..... gastric.  
 gastr ..... gastritis.  
 gastral ..... gastralgia.  
 gastrod ..... gastrodynia.  
 gastroent ..... gastroenteritis.  
 gelat ..... gelatine, gelatinous.  
 gen ..... genito.  
 gen'l ..... general.  
 gen'ly ..... generally.  
 germic ..... germicide.  
 glaci ..... glacial.  
 gland ..... glandular.  
 glist ..... glistening.  
 glitt ..... glittering.  
 glyc ..... glycerin.  
 Gim ..... gramme, -s.  
 gonor ..... gonorrhea.  
 grn ..... grain, -s.  
 grad'y ..... gradually.  
 gran ..... granules.  
 granul ..... granular, -ated, -ation.

## H

h ..... { heavy,  
                   { high (temperature),  
                   { hours.  
 H. B. K. .... Humboldt, Bonpland &  
                   Kunth.  
 hdkf ..... handkerchief.  
 heat ..... heating.  
 hemat ..... hematinic.  
 hematem ..... hematemesis.  
 hemopt ..... hemoptysis.  
 hemor ..... { hemorrhage,  
                   { hemorrhagic.  
 hemost ..... hemostatic.  
 hepat ..... hepatitis.  
 hexag ..... hexagonal.  
 hicc ..... hiccup.



h'ly.....	highly.
hoarsen.....	hoarseness.
Hoffm.....	Hoffmann.
homogen.....	homogeneous.
homol.....	homologous.
Hook.....	W. J. Hooker.
Hook, fil.....	J. D. Hooker.
hosp.....	hospital.
hr. or hrs.....	hour or hours.
Humb.....	Humboldt.
hydr.....	hydrated.
hydrobr.....	hydrobromic, -ride.
hydrochl.....	hydrochloric, -ride.
hydrocy.....	hydrocyanic, -ride.
hydropho.....	hydrophobia.
hygr.....	hygrometric.
hygros.....	hygroscopic.
hypermenor.....	hypermenorrhea.
hyperpl.....	hyperplasia.
hypertr.....	hypertrophy.
hypn.....	hypnotic.
hypochond.....	hypochondriasis.
hypoderm.....	hypodermically.
hypophos.....	hypophosphites.
hyst.....	hysteria.

## I

ident.....	identical.
ignit.....	ignition.
immed.....	immediately.
impalp.....	impalpable.
imperf.....	imperfect.
imperv.....	impervious.
impet.....	impetigo.
import.....	important.
impreg.....	impregnate, impregnated.
incin.....	incinerate.
incip.....	incipient.
incomp.....	incompatible.
incontin.....	incontinence.
incr.....	increase, increased.
ind.....	indicated.
indie.....	{ indication, indicator.
indig.....	indigenous.
indol.....	indolent.
indurat.....	induration.
inf.....	infantum.
infant.....	infantile.
infect.....	infectious.
infer.....	inferior.
infl.....	inflamed.
inflan.....	{ inflammation, inflammatory.
inflam'ble.....	inflammable.
infloresc.....	inflorescence.
influt.....	influenza.
infus.....	infusible, infusion.
ingred.....	ingredient.
inhal.....	inhalation.
inj.....	injection.
injur.....	injuries, injurious.
insol.....	insoluble.
insom.....	insomnia.
inspis.....	inspissated.
inst.....	instead.
inst'ly.....	instantly.
insuff.....	{ insufflation.
insufflat.....	

intens.....	intensely.
interm.....	intermittent.
intern.....	internally.
intest.....	intestinal, intestines.
iodof.....	iodoform.
irreg.....	irregular.
iridesc.....	iridescent.
irrit.....	{ irritant, irritating.
irritabil.....	irritability.
isom.....	isomeric.

## J

Jacq.....	Jacquin.
jaund.....	jaundice.

## L

L.....	Linnæus.
L. f. (or fil.).....	Linnaeus' Son.
Labill.....	Labillardiere.
lamin.....	laminæ.
laryng.....	laryngitis.
lax.....	laxative.
lys.....	leaves.
Lem.....	Lemaire.
leucor.....	leucorrhœa.
L'Hér.....	L'Héritier.
liberat.....	liberation.
Lindl.....	Lindley.
linim.....	liniment.
liq.....	liquid.
lith.....	lithium.
lithia.....	lithiasis.
lusterl.....	lusterless.
fustr.....	lustrous.

## M

M.....	metals.
macerat.....	maceration.
magnes.....	magnesium.
mak.....	making.
malar.....	malarial.
malassimil.....	malassimilation.
malign.....	malignant.
mall.....	{ malleable, malleability.
manf.....	manufacture.
mangan.....	manganese.
mania.....	maniacal.
maras.....	marasmus.
Mart.....	Martius.
max.....	maximum.
medic.....	medicine.
melancho.....	melancholia.
mell.....	mellitus.
membr.....	membrane.
mening.....	meningitis.
menor.....	menorrhagia.
menstr.....	{ menstruation.
menstruat.....	
mere.....	mercury.
met.....	{ metal, metals.
metal.....	metallic.
metror.....	metrorrhagia.
Mich.....	Michaux.



## MERCK'S 1907 INDEX

microbe .....	microbiote
micros .....	( microscopic,
	( microscopy.
Mill .....	Müller
min .....	mineral
misc .....	miscible
mixture .....	mixture.
mod .....	moderate.
moist'd .....	moistened.
mole .....	( molecule,
	( molecular
monocl .....	monoclinic.
mord .....	mordant.
mount .....	mounting
m. p. ....	melting-point.
muc .....	mucous, mucus.
Muell. Arg .....	Mueller of Argau.
myal .....	myalgia.
mydr .....	mydriatic.

## N

N.	normal.
nar.	narcotic.
narc.	
nat.	natural.
natur.	naturalized.
Neck.	Necker.
need.	needle.
neopl.	neoplasm.
nerv.	nerve, nervous.
nervousn.	nervousness.
neural.	neuralgia, neuralgie.
neurasth.	neurasthenia
neut.	neutral.
neutral.	neutralize.
N. F.	National Formulary.
nitr.	nitrous.
n'ly.	nearly.
norm.	normal.
nutr.	nutrient.
nutrit.	nutrition.
Nutt.	Nuttall.



o.....	other.
obes.....	obesity.
obstin.....	obstinate.
obt.....	obtain, obtained.
occas.....	occasionally.
octah.....	{ octahedral, octahedron.
odorl.....	odorless.
offens.....	offensive.
offic.....	official.
oint.....	ointment.
oophor.....	oophoritis.
opal.....	{ opalescence, opalescent.
ophthal.....	{ ophthalmia, ophthalmic.
ophthalm.....	ophthalmology.
ord.....	ordinary.
org.....	organic.
orthophosph.....	orthophosphoric.
osteomal.....	osteomalacia.
otor.....	otorrhea.
ovar.....	ovarian.

oxal	oxalate
oxid	oxidize
oxid'g	oxidizing
oxid'n	oxidation
oxidiz	oxidizable

12

piec	pieces.
par	parasite.
paral	paralysis.
paras	parasitic.
part	partial.
partic	particular, particularly.
pecul	peculiar.
pell	pellucid.
penetr	penetrate, penetrating.
perf	perfect.
perf'ly	perfectly.
pericard	pericarditis.
perist	peristalsis, peristaltic.
periton	peritonitis.
perm't.	permanent.
perm'tly	permanently.
perman	permanganate.
Pers	Persoon.
petrol	petroleum.
powerf	powerfully.
pharyng	pharyngeal.
phlegmon	phlegmonous.
phosph.	{ phosphoric, phosphorus.
photo., or photog.	photography.
phth.	phthisis.
phthis	phthisical.
phym.	phymosis.
physiol.	physiology.
pityria	pityriasis.
ph'phthal.	phenolphthalein.
pleas	pleasant.
pneum.	pneumonia.
poison	poisonous.
potass	potassium.
powd.	powder.
ppt.	{ precipitate.
precip.	
pref.	preferable.
pregn.	pregnancy.
prep.	{ prepared, preparation.
prep'g.	preparing.
pres.	presence.
preserv.	preservative.
press.	pressure.
prev.	prevent.
prin.	principle.
princ.	principal.
princip.	principally.
prism	prismatic.
prob'y.	probably.
prod.	{ product, produced, producing.
prop.	proportion.
prophyl.	prophylactic.
prost.	prostate.
proteol.	proteolytic.
prur.	{ pruritis, pruritic.



psoria.....	psoriasis.
pt.....	part.
pts.....	parts.
ptyal.....	ptyalism.
puerp.....	puerperal.
pulmon.....	pulmonary.
pulv.....	pulverulent.
pung.....	pungent.
pur.....	purity.
purg.....	purgative.
purif.....	purification.
purul.....	purulent.
putref.....	putrefaction.
pyrophos.....	pyrophosphate

## Q

quadr.....	quadratic.
quant.....	quantity.
quin.....	quinine.

## R

rach.....	{ rachitis, rachitic.
Raf.....	Rafinesque.
rap.....	rapidly.
R. B.....	Robert Brown.
react.....	reaction.
read.....	readily.
reag.....	reagent.
recom.....	recommended.
rectang.....	rectangular.
redd.....	{ redder, reddish.
rediss.....	redissolves.
reduc.....	reducing.
reduct.....	reduction.
refract.....	refractive.
reg.....	regular.
regurgit.....	regurgitation.
relax.....	relaxation.
reliev.....	relieving.
remed.....	remedies.
remit.....	remittent.
remov.....	removing.
repres.....	represents.
res.....	residue.
resin.....	resinous.
resolv.....	resolvent.
respir.....	{ respirable, respiration, respiratory.
rheum.....	{ rheumatism.
rheumat.....	{ rhombic.
rhomb.....	rhomboidal.
Roxb.....	Roxburgh.
R. & P.....	Ruiz & Pavan.
rube.....	rubefacient.

## S

sacchar.....	{ saccharated, saccharine.
saponif.....	{ saponification, saponifying.
satur.....	saturated.
scarlat.....	scarlatina.

Schlecht.....	Schlechtendal.
sciat.....	sciatica.
scrof.....	{ scrofula, scrofulous.
sebor.....	seborrhea.
sec.....	second, -s.
second.....	secondary.
sed.....	{ sedative, sediment.
sensit.....	{ sensitive, sensitiveness.
sep.....	separate.
sev.....	several.
sex.....	sexual.
shapel.....	shapeless.
shin.....	shining.
sialag.....	sialagogue.
sim.....	similar.
sl.....	{ slightly.
sl'y.....	{ slightly.
sleep.....	sleeplessness.
sm.....	small.
sod.....	sodium.
sol.....	soluble.
Soland.....	Solander.
solidif.....	solidifying.
solub.....	solubility.
solut.....	solution.
solv.....	solvent.
somet.....	sometimes.
somew.....	somewhat.
Sonn.....	Sonnerat.
sopor.....	soporific.
sp.....	species.
sp. gr.....	specific gravity.
spasm.....	spasmodic.
spermator.....	spermatorrhea.
spir.....	{ spirit, -s. spiruous.
Spreng.....	Sprengel.
stim.....	stimulant.
stimul.....	stimulating.
stom.....	stomach.
stoma.....	stomachic.
str.....	strong.
str'ly.....	strongly.
styp.....	styptic.
subcut.....	subcutaneous.
subl.....	{ sublimate, sublimes.
subseq.....	subsequent.
subst.....	substance.
substit.....	{ substitute, substituting, substitution.
succed.....	succedaneum.
sud.....	sudorific.
suffic.....	sufficient.
suffoc.....	suffocating.
sugg.....	{ suggested, suggestive.
sulph.....	{ sulphate, sulphuretted.
sum.....	summer.
sup.....	superior.
supersat.....	supersaturate.
supposit.....	suppository.
suppur.....	suppurative.
surf.....	surface.



# MERCK'S 1907 INDEX

surg. . . . . { surgery,  
                  { surgical.  
sw. . . . . { sweat,  
                  { sweet.  
Sw . . . . . { Swartz  
sweet . . . . . { sweetened.  
synp. . . . . { symptoms.  
synth. . . . . { synthesis,  
                  { synthetic.  
syph . . . . . { syphilis,  
                  { syphilitic.  
syr . . . . . { syrup,  
                  { syrupy.

## T

tastel . . . . . tasteless.  
techn. . . . . technical.  
temp . . . . . temperature.  
tert . . . . . tertiary.  
tet . . . . . tetanus.  
tetrah. . . . . { tetrahedral,  
                  { tetrahedron.  
thr. . . . . through.  
Thunb. . . . . Thunberg.  
tinct. . . . . tincture.  
titr. . . . . titrate.  
titr'n. . . . . titration.  
tons. . . . . tonsurans.  
tonsil. . . . . tonsillitis.  
top. . . . . topical.  
toxicol. . . . . toxicological.  
transl. . . . . translucent.  
transmit. . . . . transmitted.  
transp. . . . . transparent.  
treatm. . . . . treatment.  
trem. . . . . tremens.  
Trevir. . . . . Treviranus.  
tricl. . . . . triclinc.  
trigem. . . . . { trigeminal,  
                  { trigeminus.  
trimet. . . . . trimetric.  
trit'ur. . . . . triturated.  
turb. . . . . { turbid,  
                  { turbidity.  
tubere. . . . . tubercular.  
turn. . . . . turning.

## U

ule. . . . . ulcer.  
ulcerat. . . . . ulceration.  
ulcer'd. . . . . ulcerated.

unct . . . . . unctuous.  
unnat . . . . . unnatural.  
unpleas . . . . . unpleasant.  
ureth. . . . . urethral.  
urin . . . . . urinary.  
U. S. P. . . . . { United States Pharma-  
                  { copoma.  
us'y. . . . . usually.  
uter. . . . . uterine.

## V

v. . . . . very.  
var. . . . . { variable,  
                  { variety,  
                  { various.  
varie. . . . . varicose.  
veget. . . . . { vegetable,  
                  { vegetation.  
Vell. . . . . Velloso.  
vener. . . . . venereal.  
verm. . . . . vermifuge.  
vermil. . . . . vermilion.  
versic. . . . . versicolor.  
vesic. . . . . vesicant.  
vesicat. . . . . vesicatory.  
veter. . . . . veterinary.  
viol. . . . . violent.  
vitr. . . . . vitreous.  
vol. . . . . volume, volumetric.  
volat. . . . . { volatile,  
                  { volatilize.  
volatiliz. . . . . { volatilizable,  
                  { volatilizing.  
volum. . . . . volumetric.

## W

W. . . . . water.  
w. . . . . with.  
W. & A. . . . . Wight & Arnott.  
W.-b. . . . . water-bath.  
wghble. . . . . weighable.  
wh. . . . . white.  
whoop. . . . . whooping.  
Willd. . . . . Willdenow.  
wt. . . . . weight.

## Z

zym. . . . . zymotic.







# MERCK'S 1907 INDEX

## AN ENCYCLOPEDIA FOR THE CHEMIST PHARMACIST AND PHYSICIAN

### Abelmoschus

(Musk Mallow; Musk Seed; Amber Seed; Ambrette).—Seeds of *Abelmoschus* (*Hibiscus*) *Moschatus*, Moench *Malvaceæ*.—*Habit.*: Egypt; India; tropical America.—*Etymol.*: Arabic "hubb," seed, and "el-musk," musk, i.e., the seeds have an odor of musk.—*Constit.*: Odorous principles; mucilage; fixed oil.—*Aphrodis.*:—*Uses*: *Techn.*, in manuf. perfumes, adulterating musk, and preserving woollens from moths.

*Abietic Anhydride*.—see **Rosin**

### Abrastol (25)

(Asaprol [see also]; Calcium Betanaphthol-alphamonosulphonate).— $\text{Ca}(\text{C}_{10}\text{H}_6[\text{OH}]\text{SO}_3)_2 + 3\text{H}_2\text{O}$ .—Ident. w. asaprol, but somewhat less pure.—Gray powd.—*Sol.* W.; sl. A.—*Uses*: For plastering vines instead of gypsum (up to 10 Gm. per hectol.).

### Abrin Merck (1500)

Albuminoid (a vegetable agglutinin); act. prin. of seeds *Abrus precatorius*, L. (Jequirity).—Yellowish-white powd.—*Sol.*, solution sodium chloride.—Exceed. toxic.—*Uses*: Suggested by Kobert for prod. artif'l conjunctivitis.—Employed instead of infus. jequirity in 1:500,000 aq. solut. for clearing pannous turbidities, in chron. conjunctivitis, etc.—See also Jequiritol and Jequiritol Serum.—*Caution*. Handle very carefully. Smallest particle may be fatal in slightest wound. Extremely dangerous in eye & nose.

*Abrotanum*.—see **Artemisia Abrotanum**

### Abrus

(Jequirity; Indian Liquorice; Wild Liquorice; Prayer Beads; Crab's Eyes; Jumble Beads).—Seeds of *Abrus precatorius*, L. *Papilionaceæ*.—*Habit.*: Tropical and sub-tropical countries (East Indies; Brazil).—*Etymol.*: Grk. "abros," pretty. "Precatorius" fr. Lat. "precor," to pray, i.e., the seeds are used as prayer beads. "Jequirity" fr. "jequiry," which in the language of the Tupis is the name of a species of acacia; or more probably, a corruption of the Lat. "liquiritia," because of the sweet taste of the root.—Seeds abt.  $\frac{1}{5}$  in. long, sub-spherical, hard, and glossy scarlet color, with a black spot surrounding the hilum; odorless; taste somewhat resembling that of other beans.—*Constit.*: Abrin, a very toxic agglutinin; abric acid ( $\text{C}_{10}\text{H}_2\text{N}_3\text{O}$ ).—*Uses*: In ophthalmology, in form of infusion in trachoma.—See also Jequiritol, and Jequiritol Serum.

### Absinthin Merck

250

(Absinthiin; Absynthin [or -iin]).—Bitter prin. fr. *Artemisia Absinthium*, L. (Wormwood).— $\text{C}_{40}\text{H}_{56}\text{O}_8 + \text{H}_2\text{O}$  (Kromeyer), or,  $\text{C}_{15}\text{H}_{20}\text{O}_4 + \text{H}_2\text{O}$  (Luck).—Yellowish-brown, amorph. powd.; very bitter.—*Sol.* A., C.; v. sl. E.; insol. W.—*Melt.* 120–125° C.—Bitter Tonic.—*Uses*: Anorexia, constip., chlorosis, &c.—*Dose*  $\frac{1}{2}$ –3 grains (0.1–0.2 Gm.) in pill form, at each meal.

### Absinthium

(Wormwood).—Leaves and tops of *Artemisia Absinthium*, L. *Compositæ*.—*Habit.*: Europe; Northern and Western Asia; Africa; cultv. in U. S.—*Etymol.*: "Artemisia" fr. Grk. "Artemis," the goddess the Roman Diana to whom *Artemisia Absinthium* was dedicated. "Absinthium" fr. Grk. "a," without or not, and "psinthos," pleasure, because of the very bitter taste of the plant.—*Constit.*: Absinthin,  $\text{C}_{15}\text{H}_{20}\text{O}_4 + \text{H}_2\text{O}$  (Luck), or,  $\text{C}_{40}\text{H}_{56}\text{O}_8 + \text{H}_2\text{O}$  (Kromeyer); volat. oil (chiefly absinthol,  $\text{C}_{10}\text{H}_{16}\text{O}$ ); succinic acid; tannin.—Bitter Stomachic; Stim.; Tonic; Febrif.; Anthelmintic.—*Uses*: Gen. debil., anorexia, rheumat., and cerebr. exhaust.—*Doses*: 15–60 grains (1–4 Gm.).—Fld. extract, 20–60  $\mu$  (1.3–4 Cc.).—Alcoh. extr., 5–20 grains (0.3–1.3 Gm.).—Aqueous extr., 5–10 grains (0.3–0.6 Gm.).

*Absynthin*.—see **Absinthin**

### Abuhab Baguin

Source of bark doubtful, but most probably fr. a spec. of *Argyreia* or of *Erycibe*. *Convolvulaceæ*. Accord to Dragendorff, Abuhad Baguin (?) is derived fr. an undetermined spec. of *Combretaceæ*.—*Habit.*: Philippine Islands.—*Etymol.*: "Abuhab" among the natives signifies "poison."—Used by the Negritos as a source of arrow poison.

### Abuhab Cahoy

Bark and wood of *Lophopetalum toxicum*, Lohr. *Celastraceæ*. Botan. source is still an open question.—*Habit.*: Philippine Islands.—*Etymol.*: Fr. Grk. "laphos," tuft or crest, and "petalon," leaf. "Abuhab," see preceding.—Used by the Negritos as source of arrow poison.

### Abyssinin

Reddish-brown, liq. extr. fr. spec. of *Bayamayo*, probably *Acocanthera Schimperii*, *Apocynaceæ*; arom. odor; foams greatly; on being dried in exsiccator, loses 20% water, & then forms a syrupy liq.—Used by natives of German East Africa as an arrow poison.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Acacia.**—*U. S. P.*

(Gum Arabic).—Gummy exudation fr. *Acacia Senegal*, Willd. (also *A. Vereck* and other sp. of *A.*), Leguminosae. Mimosae.—*Habit.*: E. and W. Africa; Arabia; Senegal; Kordofan; Egypt; India; Nubia.—*Etymol.*: "*Acacia*" fr. Grk. "*akakia*," a thorny Egyptian tree, fr. Grk. "*ake*," a point. "Gum" fr. Lat. "*gummi*," derived fr. Grk. "*kommi*" through Egyptian "*cama*."—*Sol.* 2 W.; insol. A.—*Constit.*: Arabian (arabic acid; gummie acid),  $C_{12}H_{22}O_{11}$ , or  $C_{10}H_{18}O_9$  (?); pararabin.—*Demulc.*; Emoll.; Protective; Nutritive.—*Uses*: Intern., Bronch. inflam., gastro-intest. irritation, dry fauces, etc.—*Techn.*, as mucilage; pill excip.; emulsionizer.—*Dose*: Ad libitum.

*Acacia Flowers.*—see **Prunus Spinosa**

**Acenaphthene Merck** (30)

(Ethylenenaphthalene, 1,8-Ethylenaphthene; Naphthylene-ethylene).—*Constit.* of coal-tar.— $C_{12}H_{10}$ , or  $C_{10}H_6(CH_2)_2$ .—*Colorl.* need.—*Sol.*, hot A.—*Melt.* 95° C.—*Boil.* 277° C.

*Acerdol*=Calcium Permanganate.—see **Calcium Permanganate**

**Acetal Merck.**—Pure (20)

(Diethylacetal; Ethylenediethylic Ether; Diethylaldehyde).—*Prod.* by imperf. oxid'n of alcohol.— $C_4H_{14}O_2$ , or  $CH_3CH(OC_2H_5)_2$ .—*Colorl.*, volat. liq.; agre. odor; nutty after-taste.—*Sp. Gr.* 0.831 at 20° C.—*Sol.* 18 W., 25 C.; all prop., A., E.—*Boil.* 103–104° C.—*Hypn.*; Sed.—*Uses*: Hypnotic, where chloral contra-ind.—*Dose* 2–3 fl. dr. (8–12 Cc.).

*Acetaldehyde.*—see **Aldehyde, Ethylic**

*Acetaldehyde Oxim.*—see **Acetaldoxim**

**Acetaldoxim Merck** (120)

(Aldoxim; Acetaldehyde Oxim).—*React.*-*prod.* of aldehyde w. hydroxylamine.— $C_2H_5NO$ , or  $CH_3CH:N(OH)$ .—*Colorl.* liq.—*Sol.* W., A., E.—*Boil.* 115° C.—*Sp. Gr.* 0.965 at 15° C.

*Acetalphanaphthylamine.*—see **Acetnaphthalide, Alpha-**

**Acetamide Merck** (15)

(Acetic Acid Amide).—*React.*-*prod.* of ethyl acetate with  $NH_3(OH)$ .— $C_2H_5NO$ , or  $CH_3CO.NH_2$ .—*Colorl.* cryst.; deliq.; mousy odor.—*Sol.* A., W.—*Melt.* 82–83° C.—*Boil.* 223° C.

*Acetamidosalol.*—see **Salophen**

**Acetanilide Merck.**—Cryst. or powder (1)

(Phenylacetamide; Antifebrin).—*Acetyl* deriv. of aniline.— $C_8H_9NO$ , or  $C_6H_5.NH(CO.CH_3)$ .—*Wh.*, shin., cryst. scales; odorl.; sl'y burn. taste.—*Sol.*, abt. 180 W. at 25° C., and 18 boil. W.; 2.5 A. at 25° C., and 0.4 boil. A.; 12 E.; 5 C. at 25° C. (*U. S. P.*)—*Melt.* 113° C.—*Antipy.*; Analg.; Antirheum.; Sedat.; Anesth.; Cicatrizant; Antisep.—*Uses*: Intern., fevers, rheumat., headache, alcoholism, delir., neural,

sleeplessn. in children, &c.—*Extern.*, antisept., us'y in fine powd., inst. of iodoform; and as preservative of hypoderm. solut's.—*Incomp.*, nitrous ether (yellow, then red solut.); alkali bromides and iodides in aq. solut. (insol. compounds formed); hydrated chloral, carbolic acid, resorcinol, and thymol (afford liquid or soft mass on trituration).—*Dose* 3–10 grains (0.2–0.6 Gm.).—*Max. D.* 15 grains (1 Gm.) single, and 60 grains (4 Gm.) daily.—*Caut.* Avoid large doses in fever!—*Antid.*, subcutan. inject. of camphor and ether; alkaline transfus. of sodium chlor.; stimulants; atropine; strychnine; oxygen.

*Acetanilide, Monobromated.*—see **Bromacetanilide, Mono-**

*Acetanilidin.*—see **Methacetin**

*Acetethylanilide.*—see **Ethylacetanilide**

*Acetic Anhydride.*—see (Acid) **Acetic Anhydride**

*Acetic Carmine, Acid.*—see **Frey-Schneider's Acetic Carmine, Acid**

*Acetic Carmine, Neutral.*—see **Hamann's Acetic Carmine, Neutral**

*Acetic Oxide.*—see (Acid) **Acetic Anhydride**

*Acetin Blue.*—see **Induline, Alcohol-Soluble**

**Acetnaphthalide (Alpha-) Merck** (12)

(Acetalphanaphthylamine).—*React.*-*prod.* alpha-naphthylamine w. acetyl chloride.— $C_{12}H_{11}NO$ , or  $C_2H_5O.NH(C_{10}H_7)$ .—*Colorl.* or faintly reddish cryst.—*Sol.* A.; sl. in boil. W.—*Melt.* 159° C.

**Acetnaphthalide (Beta-)** (12)

$C_{12}H_{11}NO$ .—Long need. or plates.—*Sol.*, hot W.—*Melt.* 132° C.

*Acetocinnamone.*—see **Benzylideneacetone**

*Acetosalicylic Ether.*—see **Salacetol**

**Acetone Merck.**—Highest Purity, Medicinal (2)

(Dimethylketone; Dimethylketal; Ketopropane; Methylacetyl; Pyroacetic Ether).—*Prod.* by dry distil'n of acetates.— $C_3H_8O$ , or  $CH_3CO.CH_3$ .—*Clear*, colorl. liq.; fragr. mint-like odor; sharp, biting taste.—*Sp. Gr.*, when nearly anhyd., 0.790 at 25° C.—*Sol.*, all prop., W., A., E., C., and volat. oils.—*Boil.* 56–57° C.—*Uses*: Intern., Mild Alter.; Anthelm.; Nerv.—*Extern.*, Top. Irrit.—*Dose* 5–15 drops in W. or A.—*Appl.* 10 to 15% solut.—*Caut.* Highly inflammable!

do. Merck.—From Acetone-sodium Bisulphite (12)

do. Merck.—Technical (1)

*Uses*: *Techn.*, solvent for resins, fats, caoutchouc, pyroxylin, celluloid, etc.; manuf. of chloroform and synthetic indigo; storing acetylene gas, as it takes up abt. 24 times its volume of acetylene.

**Acetone Merck.**—Reagent (4)

$CH_3CO.CH_3$ .—*Clear*, colorl. liq.—*Boil.* 56–57° C.—*Sp. Gr.* 0.797.—*Tests*: (Res.) evap. 25 C. =

Comparative Values (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



none wghble.—(*Acids*) no act. on blue litmus paper.—(*Solub in W.*) clearly misc w eq vol W.—(*Aldehydes*) heat 10 Ce w 5 Ce ammon. solut.  $\text{AgNO}_3$  15 min on steam-bath—no brown color.—(*Oxidiz Substcs*) to 10 Ce add 1 drop 0.1% solut.  $\text{KMnO}_4$ —pink color not entirely disch. in 15 min at 15° C.—(*H<sub>2</sub>O*) mix w eq vol. petrol ether (b p. 40–70° C.) two layers must not form.—*Uses*: Chiefly as solvent for fats, resins, oils, collodion, etc.

*Note*:—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acetone, Monochlorated.**—see **Chloracetone**

**Acetone-chloroform.**—see **Chloretone**

**Acetone-resorcinol**

Fr. resorcinol w. acetone, by fum. hydrochl. acid added hot.— $\text{C}_{15}\text{H}_{10}\text{O}_4 + \text{H}_2\text{O}$ .—Sm., anhydrous prisms.—*Sol.*, alk. solut.; insol. W., A., E., C.—*Melt.* 212–213° C.—Antiseptic.

**Acetone-sodium Bisulphite Merck** (12)

Comp. of acetone & acid sodium sulphite.— $(\text{CH}_3)_2\text{C}.\text{SO}_2\text{Na}.\text{OH}$ .—Colorl. cryst.—*Sol.* W.; sl. A.

**Acetonitrile.**—see **Methyl Cyanide**

**Acetoparaiodanilide.**—see **Iodacetanilide**

**Acetophenonacetylpara-amidophenol Ester.**—see **Hypnoacetin**

**Acetophenone.**—see **Hypnone**

**Acetophenonephenetidin Citrate.**—see **Malarin**

**Acetopyrine.**—see **Acopyrine**

**Acetorthamidotoluene (or, -ol).**—see **Acetorthotoluide**

**Acetorthotoluide Merck** (12)

(Acetorthamidotoluene[or, -ol]; Orthotolylacetamide).— $\text{C}_9\text{H}_{11}\text{NO}$ , or,  $\text{C}_6\text{H}_4.\text{CH}_3.\text{NHCOCH}_3$ .—Colorl. cryst.—*Sol.* A., E.; sl. W.—*Melt.* 107° C.—*Boil.* 296° C.—Antipyr.; less toxic than acetanilide.—*Dose* 8 grains (0.5 Gm.) single; 60 grains (4 Gm.) daily.

**Acetozone** (120)

(Benzoylacetyl Peroxide; Benzozone).— $\text{C}_6\text{H}_5.\text{CO}.\text{O}.\text{O}.\text{COCH}_3$ .—Colorl. cryst.—*Sol.* E., C., carbon tetrachloride, 20 oil; sl. A.; v. sl. W.—*Melt.*, abt. 37° C.—Marketed as 50% mixt. w. inert absorb. powd.; decomposes on contact w. moisture, or in warm place.—Germicide in diseases of bacterial character.—*Dose* 3–5 grains (0.2–0.3 Gm.) in gelat. caps.

**Acetpara-amidotoluene.**—see **Acetparatoluide**

**Acetparatoluide Merck** (15)

(Acetpara-amidotoluene[or, -ol]; Paratolylacetamide).— $\text{C}_9\text{H}_{11}\text{NO}$ , or,  $\text{C}_6\text{H}_4.\text{CH}_3.\text{NH}.\text{COCH}_3$ .—Colorl. cryst.—*Sol.*, sl. W.; mod. A.—*Melt.* 151° C.—Antipyr.—*Dose* 15–30 grains (1–2 Gm.).

**Acetphenetidin Merck.**—U. S. P. (2)

(Para-acetphenetidin; Oxyethylacetanilide; Phenacetin).— $\text{C}_{15}\text{H}_{17}\text{NO}_2$ , or,  $\text{C}_6\text{H}_4.\text{OC}_2\text{H}_5.\text{NH}.\text{CH}_3.\text{CO}$  [1.4].—Wh, tasted, cryst. powd.—*Sol.* 925 W, 12 A, 63 I., 20 C. at 25° C.; 70 boil W.; 2 boil. A.—*Melt.* 131–135° C.—Antipyr., Analges.; Antirheum.—*Uses*: Intern., neural, rheum., pleurisy, whoop-cough, polyuria, diabetes, chorea, influenza, tonsil., scarlat.—*Extern.*, painful ulc.; hastens healing of wounds. Effect lasts 8–10 hrs; max. in 4 hrs. (Dujardin-Beaumetz).—*Dose*: Antipyr., 8–10 grains (0.5–0.6 Gm.); antineural, 15–24 grains (1–1.5 Gm.); children: 2½–5 grains (0.15–0.3 Gm.).—*Caut.* Use cautiously in phth.

**Acet-theocin-sodium** (46)

(Soluble Theocin [Theophylline]).—Wh, cryst. powd., 60% theophylline. *Sol.*, abt. 25 W.; insol. A., E.—Diuret.—*Uses*: Cardiac & renal anasarca, etc.—*Dose* 3–5 grains (0.2–0.3 Gm.) 3–4 t. p. d. in solut. aft. meals.

**Acetyl Bromide Merck** (15)

React.-prod. of acetic acid w. phosphorus pentabromide.— $\text{C}_2\text{H}_3\text{BrO}$ , or,  $\text{CH}_3.\text{CO}.\text{Br}$ .—Colorl., fum. liq.; turns yellow in air.—*Boil.* 81° C.—*Uses*: Reag. in org. synth., & anal.—*Caut.* Fumes irritate the eyes. Reacts violently w. water!

**Acetyl Chloride Merck** (12)

React.-product of acetic acid w. phosphorus trichloride.— $\text{C}_2\text{H}_3\text{ClO}$ , or,  $\text{CH}_3.\text{CO}.\text{Cl}$ .—Colorl., h'ly refracting, fum. liq.—*Sp. Gr.* 1.1305 at 0° C.—*Boil.* 55° C.—*Uses*: Reag. in org. synth., & anal.—*Caut.* Fumes irritate the eyes. Reacts violently w. water!

**Acetyl Iodide** (120)

React.-product of acetic acid with iodine & phosphorus.— $\text{C}_2\text{H}_3\text{IO}$ , or,  $\text{CH}_3.\text{CO}.\text{I}$ .—Brown, transp., fum. liq.—*Sp. Gr.* 1.98 at 17° C.—*Boil.* 105–108° C.

**Acetyl Oxide.**—see (Acid) **Acetic Anhydride**

**Acetylacetone Merck** (60)

$\text{CH}_3.\text{CO}.\text{CH}_2.\text{CO}.\text{CH}_3$ .—Colorl. liq.—*Sp. Gr.* 0.987 at 15° C.—*Boil.* 136–137° C.

**Acetylated Methylene-diguaiacol.**—see **Euguform**

**Acetylbenzoylaconine.**—see **Aconitine, Potent**

**Acetylcresol (Ortho-) Merck** (16)

$\text{CH}_3.\text{CO}.\text{C}_6\text{H}_4.\text{CH}_3.\text{OH}$ .—Cryst.—*Sol.* A., E., hot W.—*Melt.* 104° C.

**Acetylenecarbamide.**—see **Acetyleneurea**

**Acetylene Tetrabromide Merck** (20)

(Muthmann's Liquid).— $\text{C}_2\text{H}_2\text{Br}_4$ .—Yellowish liq.—*Sp. Gr.* 2.98–3.00 at 15° C.—*Boil.*, abt. 137° C.—*Uses*: In microscopy, and for separating minerals by sp. gr.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Acetylene Tetrachloride Merck.**—Pure (16)  
 $C_2H_2Cl_4$ .—Colorl. liq.—Sp. Gr. 1.602 at 15° C.  
 —*Sol.* A.

do. **Merck.**—Commercial (15)

**Acetyleneurea Merck** (800)  
 (Acetylenecarbamide; Glycoluril).—React.-  
 prod. of glyoxal & urea w. hydrochloric acid.  
 $-C_2H_6N_4O_2$ , or,  $CO(NH)_2 \cdot (CH_2)_2(NH)_2CO$ .—  
 Yellowish cryst.—*Sol.*, hot W.

**Acetylparaethoxyphenylurethane.**—see **Thermo-  
 din**

**Acetylpara-amidosalol.** } —see **Salol-  
 phen**  
**Acetylparamidophenyl Salicylate.** }

**Acetylparaoxyphenylurethane.**—see **Neurodin**

**Acetylphenylenediamine.**—see **Phenylenedia-  
 mine, Para-**

**Acetylphenylhydrazine Merck** (40)  
 (Hydracetic; Pyrocin; Acetylphenylhydra-  
 zide).—React.-prod. of phenylhydrazine w.  
 acetic anhydride.— $C_{12}H_{16}N_2O$ , or,  $C_6H_5 \cdot (NH)_2 \cdot$   
 $C_2H_3O$ .—Colorl. cryst. powd.—*Sol.*, readily  
 in A. and in hot W.; sl. in E.—*Melt.* 128°  
 C.—*Antipyr.*; *Analg.*; *Antiparasitic.*—*Uses:*  
*Intern.*, reduc. fev. generally; *rheumat.*—*Extern.*,  
 psoriasis & o. skin dis.—*Dose*  $\frac{1}{2}$ –3 grains  
 (0.03–0.2 Gm.) per day.—*Appl.* 10% oint.

**Acetylsalol.**—see **Vesipyrene**

**Acetyltannin.**—see **Diacetyltannin**

**Acetylthymol Merck** (80)  
 (Thymyl Acetate).— $C_{12}H_{16}O_2$ , or,  $C_{10}H_{14}O \cdot$   
 $C_2H_3O$ .—Sl. yellowish liq.; pung. taste.—  
 Sp. Gr. 1.009 at 0° C.—*Boil.* 244° C.—*Antisep.*

**Acetyl tropeine Merck** (1200)  
 $C_{10}H_{17}NO_2$ , or,  $C_8H_{14}NO \cdot C_2H_3O$ .—Syrupy liq.  
 —*Sol.* W., A., E.—*Boil.* 235°–237° C.

**Achillea.**—see **Iva Flowers**

## Achillea

(Milfoil; Thousand-Leaf; Yarrow).—Flowers  
 and herb of *Achillea millefolium*, L. Com-  
 positae.—*Habit.*: Europe; Asia; naturalized  
 in U. S.—*Etymol.*: Fr. its reputed discoverer,  
 Achilles, who is said to have healed Telephus  
 with the plant. “*Millefolium*” fr. Lat. “mille,”  
 thousand, and “*folium*,” leaf, i.e., the leaf is  
 divided into numerous, minute divisions.—  
*Constit.*: *Flowers*: Volat. oil; achillein,  $C_{20}$ -  
 $H_{38}N_2O_{15}$ ; aconitic (achilleic) acid; tannin.—  
*Flowers* are Stim.; Aperient; Tonic; Emmen.;  
*Herb* is, in addition, Hemostat. and Altera-  
 tive.—*Uses*: Debility, amenorrh., dysmenorrh.  
 and uterine diseases; domestic remedy in  
 catarrh.—*Doses*: *Flowers*: 30–60 grains (2–4  
 Gm.) in infus.—*Alcoh. extr.*, 5–20 grains  
 (0.3–1.3 Gm.).—*Aqueous extr.*, 5–20 grains  
 (0.3–1.3 Gm.).—*Fld. extr.*, 30–60 ℥ (2–4 Ce.).

**Achillea Ptarmica.**—see **Ptarmica**

## Achillein

Purified extract fr. *Achillea millefolium*.—  
 Brittle, brownish-red, amorph., bitter mass.—  
*Sol.* W.; diffic. A.; insol. E.

**Achras Sapota.**—see **Sapota**

**Acid Abietic Merck** (240)

(Abietinic Acid).—By digest. colophony with  
 weak alcohol.— $C_{44}H_{64}O_8$ , or,  $C_{19}H_{26}O_2$  (Maly).  
 —Yellowish, resinous powd.—*Sol.* A., E., C., B.  
 —*Melt.* 165° C. (Maly); 153–154° C. (Mach).

**Acid Acetamidomethylsalicylic.**—see **Benzace-  
 tin**

**Acid Acetic Merck.**—Glacial. —99 $\frac{1}{2}$ %.—  
 Highest Purity.—Dissolves Oil of Lemon  
 in all proportions 1

(Crystallizable Acetic Acid; Methane-carboxylic  
 Acid).— $C_2H_4O_2$ , or,  $CH_3COOH$ .—Strongly  
 acid liq.; sharp acetic odor; crystallizes a few  
 degrees below 15° C.—Sp. Gr. 1.0553–1.058  
 at 15° C.—*Boil.* 117°–118° C. (U. S. P.)—  
 Indiff. to potass. permang.—*Misc.*, all prop.  
 W., A.—*Uses*: Chiefly techn.—*Extern.*, caustic  
 for warts or corns; vesicat.—*Antid.*, emetics,  
 magnesia, chalk, soap, oil, &c.

do. **Merck.**—80%.—Pure (1)

*Misc.*, all prop., W., A.—Sp. Gr. 1.0748 = 10°  
 Bé.—*Uses*: Techn. & medic. (caustic for  
 warts).

do. **Merck.**—60%.—Pure (1)

Sp. Gr. 1.068 at 15° C.—*Uses*: Techn.

do. **Merck.**—U. S. P.—Highest Purity,  
 Medicinal.—36% (1)

$C_2H_4O_2$  + aq., or,  $CH_3COOH$  + aq.—Sp. Gr.,  
 ab. 1.045 at 25° C.—*Uses*: Techn. & medic.—  
*Dose* 15–40 ℥ (1–2.6 Ce.), well diluted.

do. **Merck.**—30%.—Redistilled (1)

“No. 8.” Sp. Gr. 1.040 = 6° Bé. at 15° C.

do. **Merck.**—Diluted.—U. S. P.—6% (1)

Sp. Gr. 1.008.—*Uses*: Instead of vinegar.—  
*Dose* 100–200 ℥ (6.5–13 Ce.).

**Acid Acetic Merck.**—Reagent.—Diluted 1

Colorl. liq.—Sp. Gr. 1.041.—Abt. 30%  $CH_3$ -  
 $COOH$ .—*Tests*: As under Acid Acetic, Reagent,  
 Glacial, 96%, but using 30 Ce. 30% acid in-  
 stead of 10 Ce. 96% acid.

*Note.*—For complete tests see “Chemical  
 Reagents: Their Purity & Tests,” published by  
 D. Van Nostrand Co., New York. This reagent  
 conforms to the standard therein given.

do. **Merck.**—Glacial.—Reagent.—99 $\frac{1}{2}$ % (2)

$CH_3COOH$ .—Clear, colorl. liq.; strong acetic  
 odor.—Sp. Gr. abt. 1.048 at 25° C.—*Misc.*, all  
 prop. w. W. or A.—At least 99.5%  $CH_3COOH$ .  
 —*Solidif.*, at abt. 15.65° C.—*Tests*: (*Res.*, *HCl*,

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potas-  
 sium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sul-  
 phate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine;  
 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

$H_2SO_4$ , *Heavy Met.* As under Acid Acetic, Reagent, Glacial, 96%.—In addition make the following: (*Formic & Sulphurous Acids*) 2 Ce. + 5 to 10 Ce.  $NH_4OH$  + sat.  $AgNO_3$ —no dark deposit (on boil 2 min.).—(*Subst.'s Reducing  $MnO_2$* ) 2 Ce. + 10 Ce.  $H_2O$  + 0.1 Ce. decinorm. solut.  $KMnO_4$ —pink color not entirely changed to brown in 2 hrs.—(*Other Empyreumatic Subst.'s*) 10 Ce. + solut.  $KOH$  to alkalinity—no smoky odor.—(*Subst.'s Reduc.  $K_2Cr_2O_7$* ) 10 Ce. + 10 Ce. conc.  $H_2SO_4$  in which 0.02 Gm.  $K_2Cr_2O_7$  is dissolved—no green color within half an hr.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Acetic Merck.**—Glacial. Reagent.—96% (2)

$CH_3COOH$ .—Clear, colorl. liq.; pung. odor; sol. lib. at abt. 10° C.—Sp. Gr. 1.064.—*Boil.* 117–118° C.—At least 96%  $CH_3COOH$ .—*Tests:* (*Res.*) evap. 10 Ce.—none weighble.—(*HCl*) to 5 Ce. + 50 Ce.  $H_2O$  + 5 Ce.  $HNO_3$  add  $AgNO_3$ —no turbid.—( $H_2SO_4$ ) 10 Ce. + 150 Ce.  $H_2O$ ; boil; add  $BaCl_2$ —no  $BaSO_4$  should ppt. within 12 hrs.—(*Empyreuma*) 5 Ce. + 15 Ce.  $H_2O$  + 0.3 Ce. decinorm.  $KMnO_4$ —red color must not disappear within 15 min.—(*Heavy Met. & Earths*) a: 20 Ce. + 100 Ce.  $H_2O$ —not ch'ng'd by  $H_2S$ ; b: 10 Ce. + 100 Ce.  $H_2O$  + excess  $NH_4OH$ —no green color on add.  $(NH_4)HS$ , & no turbid. or ppt. on add.  $(NH_4)_2CO_3$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.**—Reagent.—90% (2)

Colorl. liq.—Sp. Gr. 1.0706.—At least 90%  $CH_3COOH$ .—*Tests:* As under Acid Acetic, Glacial, Reagent, 96%.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.**—Reagent.—36% (1)

$CH_3COOH$ .—Clear, colorl. liq.—Sp. Gr., abt. 1.018.—Abt. 36%  $CH_3COOH$ .—*Tests:* As under Acid Acetic, Glacial, Reagent, 96%, but using 25 Gm. of 36% acid instead of 10 Gm. of 96% acid.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**(Acid) Acetic Anhydride Merck.**—Highest Purity (5)

(Acetic Anhydride; Acetyl Oxide; Acetic Oxide; so-called "Anhydrous Acetic Acid").—By distil. acetyl chloride w. an alkali acetate.— $C_4H_6O_3$ , or,  $O(CH_3CO)_2$ .—Colorl., v. mobile, str'ly refractive liq.; v. str. acetic

odor.—Sp. Gr. 1.080 at 15° C.—Indiff. to potass permang.—*Boil.* 137° C.—*Uses.* Techn.

**(Acid) Acetic Anhydride Merck.**—Pure (3)

**(Acid) Acetic Anhydride Merck.**—Reagent (6)  
( $CH_3COO$ )<sub>2</sub>.—Colorl. liq.; pung. odor.—Sp. Gr. 1.08.—*Boil.* 137° C.—*Tests:* ( $HCl$ ) 1 Ce. + 50 Ce.  $H_2O$  + 5 Ce.  $HNO_3$  (sp. gr. 1.153) +  $AgNO_3$ —no react. (*Res.*) evap. 10 Ce.—none weighble.—*Uses:* Exam. adeps lane, glycerin, volat. oils, resins, etc.; also in org. anal. & synth.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Acetonic.**—see **Acid Oxysobutyric**

**Acid Acetotrimethylcolchicine.**—see **Colchicein**

**Acid Acetylcarbonic.**—see **Acid Pyrouvic**

**Acid Acetylsalicylic.**—see **Aspirin**

**Acid Achilleic.**—see **Acid Aconitic**

**Acid Aconitic Merck** (60)

(Equisetic, Citridic, or Achilleic, Acid).—Fr. lvs. & tubers of Aconitum Napellus, L., (Aconite), the calcium in which is comb. w. this acid; also fr. various spec. of Achillea and Equisetum. Also fr. citric acid by heat.— $C_6H_8O_6$ , or,  $COOH.CH_2.C(COOH).CH.CO_2H$ .—Colorl. cryst.—*Sol.* W., A., E.—*Melt.* 186° C.

**Acid Adipic Merck** (1600)

(Adipinic Acid).—Fr. animal & plant fats by oxid'n w. nitric acid, & fr. other sources.— $C_6H_{10}O_4$ , or,  $(CH_2)_4(COOH)_2$ .—Yellowish cryst. powd.—*Sol.* A., E., hot W.; sl. in W.—*Melt.* 148° C.—*Boil.* 265° C.

**Acid Agaric Merck** (228)

(Agarie, Laricie, or Agaricinic, Acid).—Fr. agaricin.— $C_{16}H_{30}O_5 + H_2O$ , or,  $C_{14}H_{27}O_{11}(COOH)_2 + H_2O$ .—Yellowish cryst. powd.; odorl.; alm. tast.—*Sol.*, sl. W., E., and v. sl. in C.; in 130 cold & 10 boil. A.; also in boil. W.; in oil of turpentine, hot glacial acetic acid.—*Melt.* 140° C.—Antihidrotic.—*Uses:* Night-sweats of phth., & to check the sudorific effects of synthetic antipyretics.—*Dose*  $\frac{1}{6}$ – $\frac{1}{2}$  grain (0.01–0.03 Gm.) at night, in pills.—See also Agaricin.

**Acid Algine**

$C_{76}H_{117}N_2O_{22}$ .—Colloidal subst. fr. sea-weeds.—Nutrient.

**Acid Allomaleic.**—see **Acid Fumaric**

**Acid Aloeresinic** (200)

Fr. aloes resin, by nitric acid.— $C_9H_9NO_6$ (?).—Dark brown, amorph. powd.—*Sol.* W.

**Acid Aloetic Merck** (150)

(Aloetic, or Polychromic, Acid; Aloe Purple; Tetranitroanthraquinone).—Fr. aloes,

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



by nitric acid.— $C_{14}H_4(NO_2)_4O_2$ .—Brownish-yellow to orange-yellow, amorphous powd.; explodes w. heat.—*Sol.* A.; sl. in W.

*Acid Alpha-aminoisocaproic.*—see **Leucine**

*Acid Alpha-aminopropionic.*—see **Alanin, Alpha-**

*Acid Alphabctadioxypropionic.*—see **Acid Glyceric**

*Acid Alphacarbonaphtholic.*—see **Acid Oxynaphthoic, Alpha-**

*Acid Alphadacinnamic.*—see **Acid Truxillic, Alpha-**

*Acid Alphahydroxypropionic.*—see **Acid Lactic**

*Acid Alphamonobromobutyric.*—see **Acid Monobromobutyric, Alpha-**

*Acid Alphamonobromopropionic.*—see **Acid Monobromopropionic**

*Acid Alphanaphtholcarboxylic.*—see **Acid Oxynaphthoic, Alpha-**

*Acid Alphaoxyisobutyric.*—see **Acid Oxyisobutyric**

*Acid Alphaphenylacrylic.*—see **Acid Atropic**

*Acid Alphaphcnylbtahydroxypropionic.*—see **Acid Tropic**

*Acid Alaphyridinecarbonic.*—see **Acid Picolinic**

*Acid Alphatolvic (or, -toluylic).*—see **Acid Phenylacetic**

**Acid Amidobenzoic (Meta-) Merck** (80)  
(Benzaminic Acid).—Fr. metanitrobenzoic acid by reduct.— $C_7H_5NO_2$ , or,  $C_6H_4.NH_2.CO_2H$  [1:2].—Yellowish cryst.; sublime eas.; sweet taste; aqu. solut. turns brown in air.—*Sol.* 2 W., 4 A.—*Melt.* 173–174° C.

**Acid Amidobenzoic (Ortho-) Merck.**—Highest Purity (40)  
(Anthranilic Acid).—Fr. indigo, by boil. w. potassa.— $C_7H_7NO_2$ , or,  $C_6H_4.NH_2.CO_2H$  [1:2].—Yellowish cryst.—*Sol.* W., A.—*Melt.* 144–145° C.—Important intermediate product in the industrial manif. of synthetic indigo.

do. Merck.—Techn. (12)

**Acid Amidobenzoic (Para-) Merck** (100)  
(Amidodracyle Acid).—Fr. paranitrobenzoic acid by reduct.; or from acetylparatoluidine by oxid'n in boil. water w. potass. permang.— $C_7H_7NO_2$ , or,  $C_6H_4.NH_2.CO_2H$  [1:4].—Yellow cryst.; perman. in moist air.—*Sol.*, mod. in W.; eas. in A., E.—*Melt.* 186–187° C.

**Acid Amidosalicylic (Hydrochloride) Merck** (250)  
(Hydrochloride of Meta-aminosalicylic Acid).—By reduct. of nitrosalicylic acid.— $C_7H_5NO_3.HCl$ , or,  $C_6H_3(COOH)(OH)(NH_2)$  [1:2:5].— $HCl$ .—The hydrochloride only is supplied,

as solut. of the pure acid is very easily decomposable.—Grayish-white cryst.—*Sol.*, cold W.; hot A.—*Uses:* Manuf. of transfer paper.

**Acid Amidosulphonic Merck** (100)  
 $NH_2.SO_3H$ .—Colorl. cryst.—*Sol.* W.

*Acid Aminoacetic.*—see **Glycocol**

*Acid Aminobarbituric.*—see **Uramil**

*Acid Aminoethansulphonic.* } —see **Taurin**  
*Acid Aminoisethionic.* }

*Acid Aminosuccinamic.*—see **Asparagin**

*Acid Aminosuccinic.*—see **Acid Asparaginic**

**Acid Amygdalic Merck** (15)  
(Phenylhydroxyacetic, Amygdalinic, Phenylglycolic, Benzoglycolic, or Paramandelic Acid).—Fr. benzaldehyde & acetophenone dibromide.— $C_8H_8O_3$ , or,  $C_6H_5.CH(OH).COOH$ .—Large, rhombic cryst.—*Sol.*, sl. W.; v. eas. in A., E.—*Melt.* 118° C.

**Acid Anacardic Merck** (300)  
Fr. Anacardium occidentale, L. (Cashew nut).— $C_{22}H_{32}O_5$ .—Brown, cryst. mass.—*Sol.* A., E.—*Melt.* 26° C.—Anthelm.—*Uses:* Vermifuge, in form of ammonium anacardate.

*Acid Anchoic.* } —see **Acid Azelaic**  
*Acid Anchoinic.* }

**Acid Anemonic Merck** (600)  
Fr. anemonin (extr'd fr. cert. spec. of Anemone by steam), by baryta water.— $C_{10}H_{10}O_5$ .—Yellowish powd.; insol. in W.

**Acid Angelic**  
(Angelie Acid).—Fr. root Angelica Archangelica, L., & fr. oil Anthemis nobilis, L.— $C_8H_8O_2$ , or,  $CH_2:CH.CH(CH_3)COOH$ .—Monocl. prisms, or need.; spicy odor.—*Sol.* A., E., hot W.—*Melt.* 45° C.—*Boil.* 185° C.—Arom. tonic.

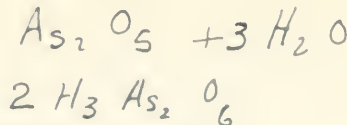
*Acid Anilinesulphonic.*—see **Acid Sulphanilic**

**Acid Anilotic Merck** (150)  
(Anilotic, or Vicinal Metanitrosalicylic Acid).—Fr. salicylic acid, or salicin, by oxid'n w. nitric acid.— $C_7H_5NO_5 + H_2O$ , or,  $C_6H_3COOH.OH.NO_2$  [1:2:3] +  $H_2O$ .—Yellowish cryst.—*Sol.* A., E.; sl. W.—*Melt.* 125° C.

**Acid Anisic Merck.**—Perfectly white, cryst. (20)  
(Paramethoxybenzoic Acid; Methoxybenzoic Acid; identical w. Draconic Acid [Laurant], Umbellie Acid [Persoz]).—Fr. anethol or oil of anise by oxid'n.— $C_8H_8O_3$ , or,  $C_6H_4.OCH_3.COOH$ .—Wh. cryst.; odorl.; tastel.—*Sol.* A., E.; v. sl. cold, eas. in hot W.—*Melt.* 184° C.—Antisep.; Analg.; Antipyr.—*Uses:* Intern., inst. of salicylic acid in acute artic. rheumat.; fev., neuralg., diab. mell., chronic gastr., & intest. catarrhs, diarr., &c.; us'y in form of sodium anisate.—*Extern.*, oint. for

Comparative Values (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Ilyosecamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.





eczemat. erupt.; tooth powd. & in powd. with starch, for feter of feet. *Dose* 5-15 grains (0.3-1 Gm.).—*Appl.* in 1.10 oint. or oleoh. solut.—*Antid.* digitalis.

### Acid Anisolsulphonic

By treat. anisol w. sulphuric acid, both the ortho- & the para-compound being formed.  $C_6H_5SO_3$ , or,  $CH_3OCH_2SO_3H$

**Acid Anthranilic.**—see **Acid Amidobenzoic, Ortho-**

(*Acid*) **Antimonic Anhydride.**—see **Antimony Oxide, Antimonic**

(*Acid*) **Antimonous Anhydride** or **Anhydrous.**—see **Antimony Oxide, Antimonous**

### Acid Arabic

(Gummic Acid; Arabin).—From acacia.— $C_6H_8O_5 + H_2O$ .—Wh., amorph. powd.; str. acid react. in solut.; sour taste.—*Sol.*, in alk. W.

### Acid Arachic Merck

(Arachidic, or Arachinic, Acid).—Fr. oil of Arachis hypogaea, L. (Peanut).— $C_{20}H_{40}O_2$ , or,  $C_{19}H_{38}COOH$ .—Sm., shin. plates; pearly luster.—*Sol.* A., E.—*Melt.* 75° C.

### Acid Arsenic Merck.—Pure

(True, or Ortho-, Arsenic Acid).—Fr. arsenic by digest. with nitric acid (12) & hydrochl. acid (1).— $2H_3AsO_4 + H_2O$ .—Wh., transl. cryst.—*Sol.* W., A.—*Uses*: Chiefly techn. and in manuf. of arsenates; rarely medicinally, and then us'y only in form of sodium arsenate.—*Dose*  $\frac{1}{12}$  grain (0.005 Gm.) max. single, and  $\frac{1}{6}$  grain (0.01 Gm.) daily.—*Antid.*, emetics; stomach pump or siphon if seen immediately; hot milk & water w. zinc sulphate or mustard. After vomiting, give milk or eggs, & magnesia in milk. If saccharated oxide of iron or dialyzed iron is handy, use. If tincture of iron & ammonia water are within reach, precip. former with latter, collect precip. on a strainer, & give it moist. Always give antidotes, be the case ever so hopeless.—*Caut.* Highly poisonous!

do. **Merck.**—Highest Purity, dry.—Free from Sulphuric Acid

do. **Merck.**—Commercial, dry

*Uses*: Techn., chiefly in glass-making.

**Acid Arsenous** (or -ious).—see **Arsenic Trioxide**

### Acid Aseptic Merck

Aqu. solut. borie and salicylous acids w. hydrogen peroxide, in variable proportions.—Colorl. liq. becoming brown on expos. to air.—Antiseptic and Hemostatic in 10-50% solut.—*Uses*: Techn., for preserv. eggs.

### Acid Asparaginic Merck

(Asparagic, Aspartic, or Aminosuccinic, Acid).—Fr. asparagin by saponif. w. hydrochl. acid.— $C_4H_7NO_4$ , or,  $COOH.CH_2.CH(NH_2).COOH$ .—Colorl. cryst.; odorl.—*Sol.*, hot W.; alk. solut.—*Reag.*, prevents precip. of Cu by KOH.

### Acid Atropic Merck

(300

(Alphaphenylacrylic Acid).—Fr. atropine by baryta water, or by heat. w. hydrochl. acid.— $C_9H_9O_2$ , or,  $CH_3.C_6H_4(COOH)$ .—Colorl. cryst.; volat. w. steam.—*Sol.*, carbon disulphide, A., E.; sl. W.—*Melt.* 106-107° C.—*Boil.* 267° C., w. part. decomp.

**Acid Atropic, Iso-; Alpha- & Beta-.**—see **Acid Isotropic**

### Acid Azelaic Merck

(240

(Azelainic, Anchoic, Anchoinic, or Lepargylic, Acid).—Oxid'n. prod. of oleic acid, cocoanut oil, Chinese wax, or castor oil.— $C_{10}H_{18}O_4$ , or,  $C_9H_{17}(COOH)_2$ .—Colorl. cryst.—*Sol.* W., A., E.—*Melt.* 106-107° C.—*Boil.* 360° C.

**Acid Benzanilic.**—see **Acid Amidobenzoic, Meta-**

**Acid Benzaminoacetic.**—see **Acid Hippuric**

**Acid Benzenehexacarboxylic.**—see **Acid Mellitic**

### Acid Benzenesulphonic Merck

(50

(Benzolsulphonic Acid).— $C_6H_5SO_3H + \frac{1}{2}H_2O$ .—Colorl., very deliquesce., cryst. mass.—*Sol.*, eas. W.

**Acid Benzoboric.**—see **Acid Borobenzoic**

**Acid Benzoglycolic.**—see **Acid Amygdalic**

**Acid Benzoic Merck.**—From Benzoin Resin.—Sublimed

(3

(Phenylformic Acid).— $C_7H_6O_2$ , or,  $C_6H_5COOH$ .—Wh., or faintly yellowish pearly plates, or need.; agre., arom. odor & taste.—*Sol.* 1.8 A. at 25° C.; 15 boil. W., 1 boil. A. (U. S. P.); 3 E., 7 C., 10 G.;  $CS_2$ , at 15° C. (281 W. at 25° C.; also benzene, fixed & volat. oils; sl. petrol. benzin., U. S. P.). Borax or sodium phosphate incr. sol. in W.—*Melt.*, abt. 120° C.—*Boil.* 250° C.—Antisep.; Antipyr.; Expector.—*Uses*: Intern., to acidify phosphatic urine; reduce acidity of uric-acid urine; control urin. incont.; also in chr. bronch., pulmonary edema, & jaund.—Extern., wound-dress. and in urticaria, &c. in 1% -10% oint. and in 1% hydro-alcoh. solut.—*Techn.*, very effective preserv. of fruit-juices, alkaloidal solut's, &c.—*Dose* 10-40 grains (0.6-2.6 Gm.) 6 t. p. d.; as expectorant, 2-8 grains (0.12-0.5 Gm.) several t. p. d.—*Incomp.*, corros. subl., lead acct., &c.—*Caut.* Darkens in light. Keep in amber bot's.

do. **Merck.**—From Toluene (Toluol)

(1

By oxid'n w. nitric acid.—Gen'l propert. as of preced.—*Melt.*, abt. 121° C.—*Boil.* 250° C.—*Uses*: Intern., same as acid fr. benzoin; though some clinicians reject it.—Extern., in surg.—1000 Gm. absorb. gauze soaked in solut. of 50 Gm. toluene-benzoic acid, 20 Gm. castor oil, & 2430 Ce. methyl alcohol, produces an approx'y 5% surg. gauze (Bruus).—*Techn.*, in printing fabrics, and in manuf. of aniline blue and other coal-tar colors.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Acid Benzoic Merck.**—From Urine.—Resublimed, perf. white (6)

Fr. urine of herbiv. anim.—Wh., lustr. cryst.; characteristic urine odor.—*Sol.* A., E., sl. W.—*Uses:* Techn.

**(Acid) Benzoic Anhydride Merck** (12)

(Benzoyl Oxide; so-called "Anhydrous Benzoic Acid").—Fr. benzoic chloride, by potass. oxalate.— $C_{14}H_{10}O_3$ , or,  $(C_6H_5.CO)_2O$ .—Colorl. cryst.—*Sol.* A., E.—*Melt.* 42° C.—*Boil.* 360° C.—*Uses:* Disinf.—*Incomp.*, hot water, alkalies.

**Acid Benzolsulphonic.**—see **Acid Benzenesulphonic**

**Acid Benzoylaminoacetic.**—see **Acid Hippuric**

**Acid Benzylacetic.**—see **Acid Hydrocinnamic**

**Acid Beta-acetylpropionic.**—see **Acid Levulinic**

**Acid Betacarboxaphtholic.**—see **Acid Oxynaphthoic, Beta-**

**Acid Bithio-oxybenzoic.**—see **Acid Dithio-salicylic**

**Acid Betanaphtholcarboxylic.**—see **Acid Oxynaphthoic, Beta-**

**Acid Betaoxymethylbetapyridylpropionic.**—see **Ecgonine**

**Acid Betaphenylacrylic.**—see **Acid Cinnamic**

**Acid Betaphenylpropionic.**—see **Acid Hydrocinnamic**

**Acid Betapyridinecarboxylic.**—see **Acid Nicotinic**

**Acid Bichloracetic.**—see **Acid Dichloracetic**

**Acid Bismuthic Merck** (70)

Fr. bismuthic oxide, by water.— $Bi_2O_5.H_2O$ .—Red powd.—*Sp. Gr.* 5.75 at 20° C.—*Insol.* W.

**Acid Boric Merck.**—Highest Purity, Medicinal, cryst. (1)

(Boric, or Orthoboric, Acid).—Fr. crude, native boric acid.— $H_3BO_3$ .—Colorl. cryst.; pearly luster; sl. unct. to touch; odorl.; faint, bitterish-acid taste.—*Sol.* 18 W., 15.3 A., 4.6 G. at 25° C.; 3 boil. W. & 4.3 boil. A.—*Melt.* 160° C.; volat. at h. temp.—*Antisept.*; *Preserv.*—*Uses:* *Extern.*, dress. wounds & sores in 5–10% petrolatum oint., and in insufflat. in powd. form; eye lotions and nasal and aural washes, in 1–4% aqu. solut.; ring-worm; eczema & o. skin dis.—*Intern.*, cystitis, tuberc., diar., diphtheria, and abnorm. gastric fermentations.—*Dose* 5–15 grains (0.3–1 Gm.) 3 t. p. d.—*Techn.*, preservative.—*Incomp.*, carbonates.

**do. Merck.**—Highest Purity, impalp. powder (1)

*Uses:* Insufflat. in rhino-laryngological affect.

**do. Merck.**—Pure, cryst. or powder (1)

*Uses:* Techn. Boric acid, as well as borax, is ex-

tensively used for rendering wood weather-proof; for bleaching; in manuf. of cements; in printing & dyeing; in manuf. of enamels, glass & plaster-of-Paris; in painting, optics, ceramics, & photography; in manuf. of leather, glue, carpets, linens, hats, soaps & artificial gems; refining petroleum; also as insecticide.

**(Acid) Boric Anhydride Merck.**—Pure, fused, lumps or powder (4)

(Boron Oxide; so-called "Anhydrous Boric Acid").—Fr. true boric acid by str. heat.— $B_2O_3$ .—Semi-transp., colorl. glassy, brittle solid, or wh. powd.; odorl.; volat. at h. temp.—*Sol.* W., A.—*Melt.* 577° C.—*Uses:* Blowpipe work; metallurgy.—*Caut.* Keep dry!

**(Acid) Boric Anhydride Merck.**—Reagent.—For silicate analysis, according to Jannasch (6)

(Boric-Acid Glass; Fused Boric Acid).— $B_2O_3$ .—Brittle, vitr., hygrosc. lumps.—*Tests:* ( $SiO_2$ ; *Alkalies*, etc.) diss. 5 Gm. in 50 Cc. methyl alcohol freshly satur. w. HCl gas, in platin. dish; evap.; treat res. w. 25 Cc. meth. alc. + HCl, evap., & ignite—no wghble res.—*Uses:* Particularly in analysis of silicates to determine silica & alkalies.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Borobenzoic Merck** (8)

(Benzoboric Acid).—Wh., microcryst. powd.—*Sol.*, hot W., & A.—*Antiseptic.*—*Uses:* In mouth washes & gargles. Exhibits the physiological action of boric & benzoic acids.

**Acid Borocitric Merck** (6)

White powd.—*Antiseptic*; *Uratolytic.*—*Uses:* Urinary calculi, gout, &c. *Solv.* power for urates & phosphates is said to be exceedingly great; biborocitrates are the best forms for admin.—*Dose* 5–20 grains (0.3–1.3 Gm.) several times per day.

**Acid Borohydrofluoric Merck** (6)

(Borofluorhydric, or Hydrofluoboric, Acid).—Fr. boron fluoride, by water.— $HBF_4$ .—Clear, colorl. liq.; str. acid react.—*Boil.* 130° C.—*Misc.*, w. W.

**Acid Boronotungstic.**—see **Acid Borotungstic**

**Acid Borophenylic Merck** (10)

(Phenylboric Acid).—Mixture of phenyl borate ( $C_6H_5.B(O_2)$ ) and phenyl triborate ( $C_6H_5.B_3O_9$ ), obtained by act. of phosphorus oxychloride upon mixture of boric acid & phenol.—Wh. or reddish cryst.—*Sol.* W.—*Melt.* 204° C.—*Antisept.*—*Uses:* Chiefly technical; preservative (in 1:5000 solut.). Fatal to lower forms of life, the higher being scarcely affected even by large quantities.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

## Acid Borosalicylic Merck (10

Comb. of boric & salicylic acids in molec. prop.; prob'ly cont'g borodisalicylic acid,  $\text{BOH}(\text{OC}_6\text{H}_4\text{CO}_2\text{H})_2$ , a subst. not yet isol.—Wh. powd.—Antisept.—*Uses*: Extern., inst. of salicylic acid, us'd in form of sodium salt.

## Acid Borotungstic Merck (30

(Borowolframic, or Boronotungstic, Acid).— $\text{B}_2\text{O}_3$  (Wt.),  $2\text{H}_2\text{WO}_4$ .—Yellowish liq.—Sp. Gr. abt. 3.0.—*Sol.* W.—*Uses*: Mineralogy.—*Caut.* Keep from air & light.

## Acid Borowolframic—see Acid Borotungstic

## Acid Brassidinic

(Brassicic Acid).—Fr. crucic acid, by dil. nitric acid.— $\text{C}_{14}\text{H}_{22}\text{O}_6$ .—Thin cryst. plates.—*Sol.*, mod. A., E.—*Melt.*  $60^\circ\text{C}$ .

## Acid Bromacetic.—see Acid Monobromacetic

## Acid Bromhydric.—see Acid Hydrobromic

## Acid Bromic Merck.—Sp. Gr. 1.12 = $15.5^\circ\text{Bé.}$ —Absol. free fr. Sulphuric Acid (4

Fr. barium bromate.— $\text{HBrO}_3$ .—Colorl. or sl. yellowish liq., cont. abt. 10% absol. acid; bromine-like odor. Turns yellow rap. on expos.—Decomp. at h. temp.

## Acid Bromosuccinic.—see Acid Monobromosuccinic

## Acid Butylacetic Merck (100

(Isohexoic, or Isocaproic, Acid).—Fr. isononyl cyanide by saponif.— $\text{C}_6\text{H}_{12}\text{O}_2$ , or,  $(\text{CH}_3)_2\text{CH}(\text{CH}_2)_4\text{COOH}$ .—Liq.; rancid odor.—Sp. Gr. 0.925 at  $20^\circ\text{C}$ .—*Boil.*  $198.6$ – $199.8^\circ\text{C}$ .

## Acid Butyllactic.—see Acid Oxyisobutyric

## Acid Butyric Merck.—Highest Purity, free from Caproic & Acetic Acids.—100% (3

(Normal or Fermentation Butyric, Propylformic, or Ethylacetic, Acid).—By act. of living ferment of putrid cheese on sugar solut.— $\text{C}_4\text{H}_8\text{O}_2$ , or,  $\text{CH}_3(\text{CH}_2)_2\text{COOH}$ .—Colorless, limpid liq.; rancid odor; v. sour; solidif. at  $-19^\circ\text{C}$ .—Sp. Gr. 0.958 at  $15^\circ\text{C}$ .—*Misc.*, all prop., W., A.—*Boil.*  $163^\circ\text{C}$ .—*Uses*: Techn.; some of its ethers serve as bases of artif. flavor, ingred. for certain liqueurs, soda-water syrups, candies, &c.

do. Merck.—Pure, 80%, 60%, & 50% (2

do. Merck.—Technical, absolute (2

*Uses*: Manuf. of butyrates, and the technically important esters.

## (Acid) Butyric Anhydride (Normal) Merck (60

(Butyric Anhydride; Butyryl Oxide; so-called "Anhydrous Butyric Acid").—By act. of butyryl chloride on a dry alkali butyrate.— $\text{C}_8\text{H}_{14}\text{O}_3$ , or,  $(\text{CH}_3\text{CH}_2\text{CH}_2\text{CO})_2\text{O}$ .—Sp. Gr. 0.978 at  $15^\circ\text{C}$ .—*Boil.*  $191$ – $193^\circ\text{C}$ .

## Acid Butyric (Iso-) Merck Highest Purity (20

(Isopropylformic, or Dimethylacetic, Acid).— $\text{C}_4\text{H}_8\text{O}_2$ , or,  $(\text{CH}_3)_2\text{CHCOOH}$ .—Colorl., limpid liq.; less disagree. odor than butyric acid.—Sp. Gr. 0.965 at  $0^\circ\text{C}$ .—*Sol.* A., W.—*Boil.*  $154^\circ\text{C}$ .

do. Merck.—Commercial (12

## Acid Cacodylic Merck (80

(Dimethylarsenic, or Kakodylic, Acid).—Fr. cacodyl & mercurous oxide, in presence of W.— $\text{AsO}_2\text{C}_2\text{H}_5$ , or,  $\text{AsO}(\text{CH}_3)_2\text{OH}$ .—Colorl. cryst.; odorl.; sl. sour.—*Sol.* W., A.—*Melt.*  $200^\circ\text{C}$ .—Alterat.: Hematinic.—*Uses*: Chiefly in obstin. psoriasis and leucocythemia. The cacodylates (which see) are now largely used instead of the alkali arsenites, as the former are far less toxic.—*Dose*: 1–3 grains (0.06–0.2 Gm.), usually *subcut.* once daily or every other day.

## Acid Caffetannic Merck (400

(Coffee-tannic Acid).— $\text{C}_{15}\text{H}_{18}\text{O}_8$ .—Fr. *Coffea arabica*, L. (Coffee).—Brown mass or powd.—*Sol.* W., A.

## Acid Caïncic

(Cahineic Acid; Caïncin, Cahinein).—Fr. root of *Chiococca angustifolia*, & of *C. racemosa*, Jacq. (Caïna root).— $\text{C}_{10}\text{H}_{16}\text{O}_{18}$ .—Cryst. flakes; odorl.; bitter astring.—*Sol.* A., E.; v. sl. W.—Diur. & Cath. in sm. doses; Emetic in large.—*Uses*: Chiefly in dropsy.—*Doses*: Diur.-cath., 2–4 grains (0.12–0.25 Gm.); emetic, 8–15 grains (0.5–1 Gm.).—*Max. D.* 15 grains (1 Gm.).

## Acid Camphoric Merck.—Highest Purity, Medicinal (12

By oxid'n of camphor w. nitric acid.— $\text{C}_{10}\text{H}_{16}\text{O}_4$ , or,  $\text{C}_2\text{H}_5\text{C}_6\text{H}_8(\text{COOH})_2$ .—Colorl. needl., or scales; odorl.; fbl. acid taste.—*Sol.* A., E., C.; in 10 boil. W.; 125 W. at  $25^\circ\text{C}$ ; in fats & oils.—*Melt.*  $187^\circ\text{C}$ .—Antihidric; Antisept.; Astring.; Anticatar.—*Uses*: Extern., 2–6% aqu. solut., w. 11% A. to each 1% acid, in ac. skin dis., or as paint; 0.5–2% solut. for gargle or spray in ac. & chr. affect. of respir. tract.—Intern., phthis. night-sw., chr. bronch., pneum., gonorr., anginas, chr. cystitis, &c.—*Doses*: 8–30 grains (0.5–2 Gm.), in powd. several t. p. d.; as an antihidrot., 15–23 grains (1–1.5 Gm.) 2 hrs. before sweating sets in.—*Max. D.* 60 grains (4 Gm.) per day.

## (Acid) Camphoric Anhydride Merck (30

$\text{C}_{10}\text{H}_{14}\text{O}_3$ .—Wh. cryst.—*Sol.*, eas. A., E.—*Melt.*  $216$ – $217^\circ\text{C}$ .

## Acid Camphoronic Merck (60

(Isopropylcarballic Acid).—Fr. camphor or campholic acid by oxid'n. Found in mother liquor fr. which camphoric acid has been obt'd.— $\text{C}_9\text{H}_{14}\text{O}_6$ , or,  $\text{C}_6\text{H}_{11}(\text{COOH})_3$ .—Wh., hygrosc. cryst.—*Sol.*, eas. W., A., E.—*Melt.*  $136$ – $137^\circ\text{C}$ .—Antisept.—*Caut.* Keep fr. moist air.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Acid Capric Merck.—Cryst.** (700)

(Caprinic, Rutic, Decylic, or Decoic, Acid).—Fr. oleic acid by distil'n.— $C_{10}H_{20}O_2$ , or,  $CH_3(CH_2)_8COOH$ .—Colorl. cryst.; goat-like odor.—Sp. Gr. 0.93 at 37° C.—Sol. A., E.; alm. insol. in W.—Melt., abt. 30° C.—Boil. 263–270° C.

*Acid Caprylic.*—see **Acid Caprylic**

*Acid Caproic, Iso.*—see **Acid Butylacetic**

**Acid Caproic (Normal) Merck** (50)

(Capronic, Hexylic, Hexoic, or Pentyformic, Acid).—Fr. crude butyric acid by fract. distil'n.— $C_6H_{12}O_2$ , or,  $C_5H_{11}COOH$ .—Oily, colorl. liquid; fbl. odor of Limburg cheese.—Sol. A., E.—Sp. Gr. 0.94 at 0° C.—Boil. 205° C.—Uses: Chem.

**do. Merck.**—Fr. Capronitrile.—Pure (160)

Synonyms, formula, etc., as preceding.

**Acid Caprylic (Normal) Merck** (160)

(Normal Octylic, Octoic, or Caprylic, Acid).—Fr. cocoa-nut oil by saponif. & distil'n; or fr. normal octyl alcohol.— $C_8H_{16}O_2$ , or,  $C_7H_{15}COOH$ .—Colorl. liq. at ord. temp.; needles below 17° C.—Sol., in boil. W.—Sp. Gr. 0.911 at 20° C.—Melt. 17° C.—Boil. 235–237° C.—Uses: Chem.

*Acid Carbazotic.*—see **Acid Picric**

**Acid Carbolic Merck.—Colorl. cryst., fused.**—  
“Silver Label” (1)

(Phenol; Phenic, or Phenylic, Acid; Phenyl Hydroxide; Hydroxybenzene [or, -ol]).—Coal-tar constit., in fract. boil. bet. 170° & 230° C.— $C_6H_6O$ , or,  $C_6H_5OH$ .—Colorl. cryst.; charact. odor; when h'ly dil., sweetish taste. Deliq. in moist air.—Sol. A., E., C., G.; abt. 20 W. at 25° C.; 2 olive oil.—Melt., abt. 40° C.—Boil. 178–182° C.—Antisep.; Antipyr.; Caustic; Top. Anesth.—Uses: For disinf. solut's or mixt's. For solut's to abort boils or carbuncles; dress. wounds; keep flies fr. horses & cattle. In ulcers, inflam., vener. veget., nevi, hemorrhoids, toothache, whoop, cough, diphth., &c. To prev. spread of zymotic dis.—N. B. —Dangerous to infants; poisoning occurs by absorption.—Dose  $\frac{1}{4}$ –2 grains (0.015–0.12 Gm.), h'ly diluted with W., or in pills, several t. p. d. in abnorm. gastric and intest. fermentations.—Max. D. 2 grains (0.12 Gm.) single, and 8 grains (0.5 Gm.) daily.—Inj., in urethra or bladder 1 part in 500 to 1 in 1000.—Appl., by spray, 1% aqu. solut.; as wash, 0.2–0.5% solut.; as caust., in substance, or conc. solut.; as disinf. 0.5–5% aqu. solut.; in carbolic gauze; for utensils and rooms, 1% aqu. solut.; mouth wash and gargle, 1% solut.; also employed as glyeerite (20%), oint. (3%), or w. lanum and petrolatum (3%); carbolicized glycerin (10%).—Antid., any soluble non-toxic sulphate, after provoking vomiting with

zinc sulphate; uncooked white of egg in abundance; milk-of-lime; saccharate of calcium; olive & castor oils with magnesia in suspension; ice; washing the stomach w. equal parts water and vinegar; give alcohol or whisky, or abt. 4 fl. oz. (400 Cc.) camphorated oil at one dose, & injections of stimulants to avoid collapse.—Incomp., chloral; ferrous sulphate; triturated w. acetanilide, butyl-chloral hydrate, camphor, monobrominated camphor, hydrated chloral, lead acetate, menthol, naphthalene, naphthol, pyrogallol, resoreinol, salol, sodium phosphate, thymol, urethane, chloralalide, or terpin hydrate, it yields a liquid or soft mass; coagulates collodion.—Caut. Poisonous! External applications & injections have proved fatal, & therefore should be used with great caution. Keep in dark amber, well-stoppered bottles.

*Not.*—This grade of carbolic acid is a particularly stable one, and the acid is *guaranteed not to redden*, under the usual precautions of keeping.

**Acid Carbolic Merck.—Highest Purity, Medicinal, loose cryst.** (2)

Wh. cryst.—Melt. abt. 40° C.—Boil. 182° C.—Uses, Doses, &c.: As of carbolic acid, colorl. cryst.

*Not.*—This acid is *guaranteed not to redden*, under the usual precautions of keeping.

**do. Merck.—Fused** (1)

Wh., cryst. mass.—Melt. 35–37° C.—Uses, Doses, &c.: As of carbolic acid, colorl. cryst.

**do. Merck.—U. S. P.—Liquid, Medicinal, 86.4% cryst.** (1)

Uses & Doses: As of carbolic acid, colorl. cryst.

**do. Merck.—Synthetic.—Colorless, Highest Purity, cryst. or fused** (3)

Fr. aniline, by diazo-reaction.— $C_6H_6O$ , or,  $C_6H_5OH$ .—Melt., cryst., 41–42° C.—Properties, etc., as of carbolic acid, colorl. cryst.

**do.—Crude.—90%** (1)

Fr. coal tar.—Mixture chiefly of cresol & phenol.—Dark, oily liq.; str. tar odor.—Sol., partly W.—Disinf.—Uses: Gen'l disinf., either in solut. (1 in 50 to 200), or mixed w. chlorinated lime, slaked lime, &c., for urinals, toilets, stables, etc. Not adapted for wounds.

**do.—Crude.—30%** (1)**Acid Carbolic Iodized Merck.—N. F.** (30)

(Iodized Phenol).—Solut. of 20 parts iodine in 20 parts glycerin & 60 parts carbolic acid.—Antisep.; Counter-irrit.; Eschar.—Uses: Uterine dilatation.—Appl., by inj., pure.

**Acid Carbonic, Liquefied** (1)

(Carbon Dioxide; Carbonic Anhydride).—Fr. carbonates (us'ly marble dust) by acids, & subseq. compress. under cold.— $CO_2$ .—H'ly

Comparative Values (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Escherine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



volat., colorl. liq.—*Sol.*, cold *W.*—*U.*—Chiefly techn. —Somewhat extern. to prod. local anesth. —*Anal.*, fresh air, pure oxygen, cold chloride, galvanism.

*Acid Carminic.* *Alcoholic.*—see **Grenacher's**, or **Mayer's, Acid Alcoholic Carmine**

**Acid Carminic Merck** (120)  
(Glucosidal color matter fr. *Coccus cacti*, L. (Cochineal). The essent. constit. of carmine.— $C_{22}H_{22}O_{13}$ .—Dark, purplish-brown mass, or bright-red powd.—*Sol.* *W.*, *A.*, sl. *E.*; carbon disulph; str. sulphuric acid; caustic alkalies. —*Decomp.*, at 136° C.—*U.*—*Uses.* Techn.; micros. stain.

**Acid Carminic Merck.—Reagent** (500)  
 $C_{22}H_{22}O_{13}$ .—Purple-brown, amorph. masses; dark-red powd. on trituration.—*Sol.*, eas. *W.*, *A.*; insol. *B.*, *C.*—*Tests:* (*Solub.*) 1 Gm. compl. sol. in 2 Cc. *W.*; add 20 Cc. 90% *A.*—no apprec. ppt.—(*Sensit.*) add 1 drop 1% aq. solut. to 5 Gm.  $NH_4Cl$ +50 Cc. *W.*—color must be changed fr. yellowish-red to violet-red by 1 drop decinorm. KOH.—*Uses:* As stain in microscopy, & as indicator in acidimetry; also as reagent for albumin, for differentiating albumoses and peptones.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

*Acid Carthamic.*—see **Carthamin**

*Acid Caryophyllic.*—see **Eugenol**

*Acid Catechinic.* } —see **Catechin**  
*Acid Catechuic.* }

**Acid Catechutannic Merck** (60)  
Extr'd fr. *Acacia catechu*, Willd., by water. —Reddish-brown powd.—*Sol.* *A.*; acetic ether, *W.*—Astring.—*Uses:* To check diar., hemorrhage, leucor. & o. abn. disch.; also in spongy, bleed. gums; ulcer'd nipples; bronch. secret.; hoarsen.; epistaxis.

"**Acid Cathartic**" Merck (12)  
(Cathartin; mixture of natural Ca, Mg, and K salts of Cathartic, or Cathartinic, Acid).—Active principle of Senna.—Brown, gran. powd.—*Sol.* *W.*, dil. *A.*—Cathar.—*Uses:* Substit. for senna.—*Dose:* Adults, 4-6 grains (0.25-0.4 Gm.); children, 2-3 grains (0.12-0.2 Gm.).

**Acid Cerotic Merck** (1000)  
(Cerotinic Acid; Cerin).—Fr. beeswax, Caranuba & Chinese waxes; also prep. fr. ceryl alcohol.— $C_{27}H_{54}O_2$ , or,  $C_{26}H_{52}O_2$ (?). —Wh. powd.—*Sol.* *A.*—*Melt.* 78-82° C.

*Acid Cetraric.*—see **Cetrarin**

*Acid Cetylacetic.*—see **Acid Stearic**

*Acid Cetyllic.*—see **Acid Palmitic**

**Acid Chenocholic Merck** (1000)  
Fr. taurochenocholic acid of goose-bile by boil. w. baryta water— $C_{22}H_{44}O_4$ .—Yellowish powd.—*Sol.* *A.*, *E.*

*Acid Chinic.*—see **Acid Quinic**

*Acid Chinolic.*—see **Acid Quinolic**

*Acid Chinolinic.*—see **Acid Quinolinic**

*Acid Chinopieric.*—see **Acid Quinopieric**

*Acid Chinoric.*—see **Acid Quinovic**

**Acid Chloracetic Merck** (8)  
Mixt. of chlorinated acetic acids.—Colorl. liq. —*Uses:* Eschar. for warts.

*Acid Chloracetic.* *Urnar's Liquid.*—see **Acid Dichloracetic**

*Acid Chlorazotic.*—see **Acid Nitrohydrochloric**

*Acid Chlorhydric.*—see **Acid Hydrochloric**

**Acid Chloric Merck** (4)  
Fr. barium chloride by decomp.— $HClO_3$ +aq. —Colorl. liq.; v. acid.—*Sp. Gr.* 1.12=15.5° Bc.; cont. abt. 15% absol. acid.—*Misc. W.*

(*Acid*) **Chlorochromic Anhydride.**—see **Chromium Oxychloride**

**Acid Chlorocrotonic (Alpha-) Merck** (160)  
Fr. trichlorobutyric aldehyde.— $C_4H_5ClO_2$ , or,  $CH_3.CH:CCl.CO.OH$ .—Colorl., cryst. mass.—*Sol.*, sl. in cold, more read. in hot, *W.*; *E.*, *A.* —*Melt.*, abt. 97° C.—*Boil.* 206-212° C.

**Acid Chlorocrotonic (Iso-) Merck** (120)  
(Chloroquartenylic Acid).—By act. of phosphorus pentachloride upon acetoacetic ether, & subseq. reduct.— $C_4H_5ClO_2$ , or,  $CH_3.CCl:CH.CO.OH$ .—Colorl. cryst.—*Sol.*, sl. *W.*—*Melt.* 59° C.

*Acid Chloronitrous.*—see **Acid Nitrohydrochloric**

*Acid Chloroplatinic.*—see **Platinum Chloride, Platinic**

*Acid Chloroquartenylic.*—see **Acid Chlorocrotonic, Iso-**

**Acid Cholalic Merck.—Amorphous** (300)  
So-called "Cholic Acid" of Demargay & others. (*Compare Glycocholic Acid*).—Prod. of hydrolysis of glyco- & tauro-cholic acids w. alkalies.— $C_{24}H_{46}O_5$ .—Yellowish powd.—*Sol.* *A.*, *E.*; diffie. *W.*

**do. Merck.—Cryst.** (400)  
 $C_{24}H_{46}O_5$ +2½H<sub>2</sub>O.—Yellowish-white cryst.—*Sol.* *A.*, *E.*; v. sl. *W.*

(*Acid*) **Cholalic Anhydride.**—see **Dyslysin**

*Acid Cholic.* }  
*Acid Cholicinic.* } —see **Acid Taurocholic**  
*Acid Choliaic.* }

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Acid Cholic.*—see **Acid Cholalic**; **Acid Glycocholic**

**Acid Choloidic Merck** (240  
(Choloidinic Acid).—Decomp. prod. of cholic acid.—(Acc. to Hoppe, a mixt. of cholic acid & dyslysin).—Yellowish powd.—*Sol.* A.—*Melts* in boil. W.

*Acid Chromic.* } —see **Chromium Tri-**  
*Acid Chromic Anhydride.* } **oxide**

*Acid Chromo-Acetic.*—see **Flemming's Chromo-Acetic Acid**

*Acid Chromo-Aceto-Osmic.*—see **Flemming's Chromo-Aceto-Osmic Acid**

*Acid Chromo-Formic.*—see **Rabl's Chromo-Formic Acid**

*Acid Chromo-Nitric.*—see **Perenyi's Chromo-Nitric Acid**

*Acid Chromo-Osmic.*—see **Flesch's Chromo-Osmic Acid**

**Acid Chrysammic Merck** (100  
(Chrysammic Acid; Tetranitrochryszin; Tetranitrodioxyanthraquinone).—By act. of nitric acid on aloes.— $C_{14}H_4(NO_2)_4O_4$ .—Golden-yellow, shining, bitter lamina.—*Sol.* A., E.—*Caut.* Salts explode when ignited.

*Acid Chrysophanic, Medicinal.*—see **Chrysarobin**

*Acid Chrysophanic, True.*—see **Rhein**

**Acid Cinnamic Merck.**—Highest Purity, Medicinal (6

(Betaphenylacrylic, or Cinnamylic, Acid).—Fr. storax, balsam tolu, oil of cinnamon, &c., or synthetically fr. benzoic aldehyde.— $C_9H_8O_2$ , or  $C_6H_5.CH:CH.COOH$ .—Wh., cryst. scales; odorl.; volat. in steam.—*Sol.* A., E.; v. sl. W.—*Melt.* 135° C.—*Boil.* 300–301° C.—Antituberc.; Antisep.—*Uses:* Treatm. of tuberculosis & lupus, parenchymatously & intravenously; also in phthisis, in combination w. arsenic and extract opium.—*Appl.*, in 5% emuls. or alc. solut. w. cocaine in lupus.—*Inj.* (intraven.)  $\frac{1}{4}$ – $\frac{3}{4}$  grain (0.015–0.05 Gm.), in 5% oily emuls., with 0.7% solut. sod. chloride, twice a week.

*Note.*—This acid is of a particularly high degree of purity, & is specially prepared with a view to its internal use.

*Acid Cinnamylic.*—see **Acid Cinnamic**

**Acid Citraconic Merck.**—Cryst. (8

Fr. dry distil'n citric acid.— $C_8H_6O_4$ , or  $CH_3.C(COOH):CH(COOH)$ .—Yellowish cryst.—*Sp. Gr.* 1.6.—*Sol.* A., E.; readily W.—*Melt.* 80° C.

**Acid Citrazinic Merck** (400  
(Dioxypyridinecarboxylic Acid).—Fr. amide deriv. of citric acid.— $C_8H_5NO_4$ , or  $COOH.C:CH.C(OH):N.C(OH):CH$ .—Grayish-yellow

cryst. powd.—*Sol.*, in alkalies; n'ly insol. in hot W.—Carbonizes above 300° C. without melting.

**Acid Citric Merck.**—Gran., cryst., or powder (1  
(Oxytricarballic Acid).—Fr. fruit of genus Citrus (limes & lemons).— $C_6H_8O_7 + H_2O$ , or  $C_3H_4(OH)(COOH)_3 + H_2O$ .—Colorl., rhombic cryst., or wh. powd.; odorl.; v. acid; permanent in dry air at ord. temp.; efflor. in warm air, deliq. in moist.—*Sol.* W., A., E.—*Melt.* 152–153° C. when anhydr.—Antisep.; Antiscorb.; Refriger.—*Uses:* *Extern.*, post-partum hemorrhage; pruritus; aggr. appl. in diphth., angina, or gangr. sore mouth; excessive sweating; inflam. of throat.—*Intern.*, cool. bev. to assuage fev. & cure scurvy.—*Dose:* 10–30 grains (0.6–2 Gm.) several t. p. d. For paint, throat, 5–10% glycerin solut.; gargle, 1–2%; cool. drink, 80 grains (ab. 5 Gm.) to 1 quart (ab. 1 liter); also used for preparing lemonade, etc.—*Incomp.*, potass. tartrate; alkaline carbonates, acetates, and sulphides; mineral acids.

**do. Merck.**—Highest Purity, cryst. or powder (2

*Note.*—This is an exceptionally pure article, free from lead, & tartaric & oxalic acids. Only this grade should be prescribed or dispensed.

**Acid Citric Merck.**—Reagent (3

$C_6H_8O_7 + H_2O$ .—Colorl., odorl., rhomb. prisms; efflor. superfic. in warm air.—*Sol.* 0.75 cold, & 0.5 boil. W.; 1 A. (85%); 50 E.—*Tests:* (Oxal. & Tartar. Acids) 1 Gm.+2 Ce. W.; add 10 Ce. 1:2 solut.  $KC_2H_3O_2 + 5$  Ce. A.—no turbid.—(Tartar. Acid; Sugar) 1 Gm.+10 Ce.  $H_2SO_4$ —no turbid.—(Ca) 20 Ce. 10% solut.+ $(NH_4)_2C_2O_4$ —no turbid.—(Pb) 5 Gm.+10 Ce. W.+12 Ce.  $NH_4OH$  (sp. gr. 0.96)—no dark color on add. aqu.  $ILS.$ —(Res.) ignite 1 Gm.—none wghble.—*Uses:* Determin. citrate-solub. phosphoric acid.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Citric Saccharated.**—N. F.

Mixt. of 625 citric acid & 375 powd. sugar.

*Acid Citridic.*—see **Acid Aconitic**

*Acid Coffea-tannic.*—see **Acid Caffetannic**

**Acid Copaicic.**—Amorphous (15

Variable comp.—Amorph., resinous, brownish lumps.—*Sol.* A., E., B.—*Uses:* Abn. disch. of muc. membr., espec. of urethra.

**Acid Cresotic Merck.**—Crude (3

(Cresotinic Acid; Kresotic Acid).—Mixt. of ortho-, meta-, & para-, acids.—Wh. or reddish-wh., loose powd.—*Sol.* A., E.—*Uses:* Disinfect.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1411=Eserine Sulphate; 1710=Hyosecyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

**Acid Cresotic (Meta-) Merck.**—Pure (5)  
(Metahomoallicylic, Metakresotic or Cresotinic, or Metaoxymetatoluic Acid).—Fr. meta-cresol— $C_6H_4O$ , or,  $C_6H_3(COOH)(OH)(CH_3)[1,2,4]$ .—Reddish-wh. cryst.—*Sol.* A., E., C.—*Melt.*  $174^{\circ}C$ .

**Acid Cresotic (Ortho-) Merck.**—Pure (5)  
(Orthohomoallicylic, Orthokresotic or Cresotinic, or Ortho-oxymetatoluic Acid).—Fr. ortho-cresol by react. w. *sod.* & carbon dioxide.— $C_6H_4O$ , or,  $C_6H_3(COOH)(OH)(CH_3)[1,2,3]$ .—Wh. or reddish cryst.—*Sol.* A., E., C.—*Melt.*  $163-161^{\circ}C$ .

**Acid Cresotic (Para-) Merck.**—Pure (12)  
(Parahomosalicylic, Parakresotic or Cresotinic, Paraoxymetatoluic Acid [asymmetric]).—Fr. paracresol— $C_6H_4O$ , or,  $C_6H_3(COOH)(OH)(CH_3)[1,2,5]$ .—Wh. or reddish cryst. powd.—*Sol.* A., E., C.—*Melt.*  $151^{\circ}C$ .—Child's Antipyr.; Intest. Antisept.—*Uses:* Febrile affections, gastro-intest. catarrh. Sodium salt genly used.—*Doses:* Antipyr., 2-20 grains (0.12-1.3 Gm.) acc. to age, several t. p. d.; intest. antisept. (childr. dis.),  $\frac{1}{4}$ -1 grain (0.015-0.06 Gm.), in mixt.—*Max. D.* 60 grains (4 Gm.).

**Acid Cresotinic.**—see **Acid Cresotic, Crude**

**Acid Cresylic.**—see **Cresol**

**Acid Crotonic** (100)  
Fr. crude wood-vinegar, or synthetically.— $CH_3CH=CHCO_2H$ .—Trimetric plates, or monoclin. cryst.—*Sol.* W., ligroin.—*Melt.*  $72^{\circ}C$ .—*Boil.*  $185^{\circ}C$ .

**Acid Crotonolic.**—see **Acid Tiglic**

**Acid Cuminic Merck.**—Cryst. (200)  
(Isopropylbenzoic Acid).—By oxid'g cuminol w. potass. permang. in pres. of alkali.— $C_{10}H_{12}O_2$ , or,  $(CH_3)_2CH.C_6H_4.COOH$ .—Wh., prism., cryst.; volat. w. steam.—*Sol.* A., E.—*Melt.*  $115-116^{\circ}C$ .

**Acid Cyanacetic Merck** (70)  
Fr. ethyl chloracetate, by potass. cyanide with W. & heat.— $C_3H_3NO_2$ , or,  $CH_2CN.COOH$ .—Wh. cryst.; decomp. by heat into carbon dioxide & acetonitrile.—*Sol.*, readily in W. & A.—*Melt.*  $65^{\circ}C$ .

**Acid Cyanhydric.**—see **Acid Hydrocyanic**

**Acid Cyanuric Merck.**—Cryst. (100)  
(Tricarbimide; Isocyanuric, or Tricyanic, Acid).—Fr. urea.— $C_3H_3N_3O_2 + 2H_2O$ , or,  $(CN)_3(OH)_3 + 2H_2O$ ; or,  $CO:(NH.CO)_2:NH + 2H_2O(?)$ .—Wh. cryst.—*Sol.* W., A.; hot mineral acids.—Decomp. by heat.

**Acid Decoic.** } —see **Acid Capric**  
**Acid Decylic.** }

**Acid Dihydracetic Merck** (70)  
(Methylacetylpyrone).—Fr. acetoacetic ether, by heat.— $C_8H_8O_3$ , or,  $C_8H_7O_3.CO.OH$ .—Colorl. cryst.—*Sol.* A., E.; 1 W. at  $0^{\circ}C$ .—*Melt.*  $108^{\circ}C$ .—*Boil.*  $269^{\circ}C$ .

**Acid Dextronic.**—see **Acid Gluconic**

**Acid Dextrolaritic.**—see **Acid Tartaric**

**Acid Diazobenzenesulphonic (Para-) Merck** (40)  
(Paradiazobenzenesulphonic Acid).—From para-amidobenzenesulphonic acid— $C_6H_4N_2SO_3$ , or,  $C_6H_4.N.SO_3.N$ .—Wh. paste.—*Sol.* W. at  $60^{\circ}C$ ; insol. in A. & cold W.—*Uses:* In 1.60 aq. solut. as Ehrlich's reagent in diagnosis of various diseases. On mixing equal parts of urine and the reagent & adding  $\frac{1}{3}$  vol. ammonia, a red color develops in cases of typhoid, pneumonia, measles, etc.—*Caution:* May explode when heated.

**Acid Diazo-oxybenzoic.**—see **Acid Diazosalicylic**

**Acid Diazosalicylic Merck** (500)  
(Diazo-oxybenzoic Acid).—Fr. amidosalicylic hydrochloride by react. w. nitrogen trioxide.— $C_7H_4N_2O_3$ , or,  $C_6H_3(OH)(N.N)(O_2)$ .—Brownish-gray powd.—*Sol.* A.; decomp. by long boil. w. A.

**Acid Dibromogallic.**—see **Gallobromol**

**Acid Dibromosuccinic Merck** (90)  
Fr. succinic acid & bromine.— $C_4H_2Br_2O_4$ , or,  $COOH(CHBr)_2COOH$ .—Colorl. cryst.—*Sol.* A., E.

**Acid Dibromotrioxibenzoic.**—see **Gallobromol**

**Acid Dichloroacetic Merck.**—Pure (28)  
(Bichloroacetic Acid; Uner's Liquid Chloroacetic Acid).—Fr. hydrated chloral, by potass. cyanide.— $C_2H_2Cl_2O_2$ , or,  $CHCl_2COOH$ .—Colorl. liq.—*Sp. Gr.* 1.522 at  $15^{\circ}C$ .—*Sol.* W., A.—*Boil.*  $189-191^{\circ}C$ .—Caustic.—*Uses:* Eschar. in vener. & skin dis., & for warts, like trichloroacetic acid.

**Acid Diethylbarbituric.**—see **Veronal**

**Acid Digallic.**—see **Acid Tannic**

**Acid Diiodoparaphenolsulphonic.**—see **Acid Sozoiodolic**

**Acid Diiodosalicylic Merck** (30)  
 $C_7H_4I_2O_3$ , or,  $C_6H_3I_2(OH)COOH$ .—Yellowish cryst.—*Sol.* A., E.—*Melt.*  $220-230^{\circ}C$ . w. decomp.—Antipyr.; Analg.; Antisept.—*Uses:* Rheumat., gout, &c.—*Dose* 8-20 grains (0.5-1.3 Gm.), 3 or 4 t. p. d. in wafers.—*Max. D.* 30 grains (2 Gm.).

**Acid Dimethylactic.**—see **Acid Butyric, Iso-**

**Acid Dimethylamidoazobenzenesulphonic.**—see **Dimethylamidoazobenzene Sulphonate**

**Acid Dimethylarsenic.**—see **Acid Cacodylic**

**Acid Dimethylloxalic.** } —see **Acid Oxyisobutyric**  
**Acid Dimethylloxysuccinic.** }

**Acid Dimethylprotocatechuic.**—see **Acid Veratric**

**Acid Dioxybenzoic.**—see **Acid Protocatechuic**

**Acid Dioxypropionic.**—see **Acid Glyceric**

**Acid Dioxypropylidene-carboxylic.**—see **Acid Citrazinic**

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Acid Dioxystearic Merck** (25)  
(Dioxystearinic Acid).—Fr. dibromide of iso-oleic acid & silver oxide.— $C_{18}H_{36}O_4$ , or,  $C_{17}H_{33}(OH)_2COOH$ .—Wh. cryst.—*Sol.*, sl. A., E.; cas. in hot A.; insol. W.—*Melt.* 135° C.

**Acid Dioxysuccinic**.—see **Acid Tartaric**  
**Acid Diorylphenylmethanecarboxylic**.—see **Phenolphthalin**

**Acid Dipropylbarbituric**.—see **Propional**

**Acid Dithiosalicylic Merck**.—"II" (30)  
(Betadithio-oxybenzoic Acid).—Fr. salicylic acid & sulphur chloride at 150° C.— $C_{14}H_{10}S_2O_6$ , or,  $S_2(C_6H_4(OH)(COOH))_2$ .—Exists in 2 modif., differing by the solub. of their salts.—Yellowish powd.—*Sol.* W. (partly).—Antipyr.; Analg.; Antisep.—*Dose* 15–25 grains (1–1.6 Gm.) p. d.—Only lith. & sod. salts used in med.

**Acid Dodecoic**.—see **Acid Lauric**

**Acid Draconic**.—see **Acid Anisic**

**Acid Elaïdic Merck** (90)  
(Elaïdic Acid).—By oxidation of oleic acid.— $C_{18}H_{34}O_2$ , or,  $C_{14}H_{20}HC:CH.CH_2COOH$ .—Wh. cryst.—*Sol.* A., B., C.—*Melt.* 44–45° C

**Acid Ellagic**.—see **Gallogen**

**Acid Embelic Merck**.—Cryst. (900)  
Fr. fruit Embelia Ribes, Burm.— $C_{18}H_{28}O_4$ .—Orange, cryst. scales; odorl.; tastel.—*Sol.* A., E., C.—*Melt.* 140° C.—Anthelm.—*Uses*: Expel tape-worms, after neutraliz. w. ammonia & mix. w. honey or syrup. Castor oil given before & after.—*Dose* 3–6 grains (0.2–0.4 Gm.). The ammonium salt (which see) is usually used.

**Acid Ennoic, Normal**.—see **Acid Pelargonic**

**Acid Equisetic**.—see **Acid Aconitic**

**Acid Ergotic Zweifel-Merck** (1600)  
(Sclerotinic, Sclerotie, or Ergotinic Acid).—Act. prin. of sclerotic acid of Dragendorff & Podwysotski, obt. fr. ergot of rye.—Light-brown, amorph. powd.; leaves an ash on combust.—*Sol.* W.; dil. A.—Hemostatic; no action on uterus.

**Acid Ergotinic**.—see **Acid Ergotic**

**Acid Erucic** (30)  
Fr. rape-seed oil after saponif.— $C_{22}H_{42}O_2$ .—Long transp. need.—*Melt.* 34° C.

"**Acid Erythric**."—see **Alloxan**

**Acid Erythric** (140)  
(Erythrin).—Fr. lichen Rocella fuciformis, Ach., by macerat. w. milk-of-lime.— $C_{20}H_{22}O_{10}$ , or,  $C_4H_4O_4(C_6H_4O_2)_2$ .—Colorl., cryst. powd.; becom. bright red by ammonia & air.—*Sol.* A., E., caustic alkalis; sl. in boil. W.—*Melt.* 137° C.—*Uses*: Indicator; dye.

**Acid Esculinic**.—see **Esculin**

**Acid Ethanethiolic**.—see **Acid Thioacetic**

**Acid Ethylacetic**.—see **Acid Butyric**

**Acid Ethylcarbonic**.—see **Acid Propionic**

**Acid Ethylenedicarboxylic**.—see **Acid Succinic**

**Acid Ethylenchydriinsulphonic**.—see **Acid Ise-thionic**

**Acid Ethylenesuccinic**.—see **Acid Succinic**

**Acid Ethylidenelactic**.—see **Acid Lactic**

**Acid Ethylmalonic Merck** (300)  
Fr. alphabromobutyric acid heated w. potass. mercuric cyanide, & decomp'g result. liquid w. KOH.— $C_6H_8O_4$ , or,  $CH_3CH_2CH(COOH)_2$ .—Colorl. cryst.—*Sol.* W., A., E.—*Melt.* 111.5° C.

**Acid Ethylsulphuric Merck** (3)  
(Sulphethylic, or Sulphovinic, Acid; Monoethyl Sulphate).—By act. sulphuric acid on alcohol.— $C_2H_5HSO_4$ .—Colorl., oily liq.; v. acid.—Sp. Gr. 1.316 at 16° C.—*Sol.*, readily W., A.—*Uses*: Medic. as salt (sodium, zinc, &c.); also for precipitating casein in milk.

**Acid Ethylsulphurous**  
(Sulphovinous Acid).—By act. thionyl chloride on ethyl alcohol.— $C_2H_5HSO_3$ .—Cryst., unstable mass.—*Sol.* E.

**Acid Ethyltartaric Merck** (8)  
 $C_4H_5O_6$ ,  $C_2H_5$ .—Colorl. cryst.—*Sol.* W., A.—*Melt.* 90° C.—*Uses*: Printing with Indol Blue and Crystal Fast Blue on fustian, etc.

**Acid Euchroic Merck** (800)  
(Euchronic Acid).—Fr. euchrone by oxid'g its solut. in air.— $C_{12}H_4N_2O_8 + 2H_2O$ , or,  $C_6(C_2O_2NH)_2(COOH)_2 + 2H_2O$ .—Yellowish cryst.—*Sol.* A., dil. HCl; v. sl. W.—*Melt.*, above 280° C., w. decomp.

**Acid Eugenic**.—see **Eugenol**

**Acid Euxanthic Merck**.—Purest (160)  
(Purric, or Euxanthinic, Acid; Euxanthin).—Fr. purree or so-called "Indian yellow."— $C_{19}H_{16}O_{10} + 3H_2O$ .—Straw-yellow need.; sweet, w. bitter after-taste.—*Sol.* E., boil. A.; sl. W.—Decomp. on heat.

**Acid Ferrocyanic**.—see **Acid Ferrohydrocyanic**

**Acid Ferrohydrocyanic Merck** (5)  
(Ferrocyanic, or Hydroferrocyanic, Acid; Hydrogen Ferrocyanide).—Fr. potass. ferrocyanide by dil. hydrochloric acid.— $H_4Fe(CN)_6$ .—Wh. cryst.; blue in moist air; gives off hydrocyanic acid; str. acid react.—*Sol.* A., W.—*Caut.* Keep fr. light & well stoppered.

**Acid Filicic Merck**.—Amorph. (400)  
Fr. rhizome of Dryopteris Filix-mas, Schott (Male fern).— $C_{35}H_{42}O_{13}$ .—Yellowish, amorph. powd.; odorl.; tastel.—*Melt.* 125° C.—Anthelm.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

—*Dose* 8-15 grains (0.5-1 Gm.), given w. calomel & powd. jalap.—*Caut.* Keep in amber bot.

## Acid Filicic Merck.—Cryst. (450

(Filicinic Acid). Isobutyryloxynaphthoquinone.—Fr. rhizome of *Dryopteris Filix-mas*, Schott/Male fern.— $C_6H_4O_5$ .—Yellowish cryst.—*Sol.* A, E, CS, oil turpentine, oils, & alkali solut.—*Melt* 185° C.—*Caut.* Keep dark.

## Acid Filicinic.—see Acid Filicic. Cryst.

## Acid Filimellissic Merck (300

Fr. filicic acid, by potassa (Luck).—Yellow powd.—*Sol.* F, C, hot A.

## Acid Fluorhydic.—see Acid Hydrofluoric

## Acid Formic Merck.—Sp. Gr. 1.22=26° Bé. (abt. 100%) Pure, crystallizable (4

(Hydrogen Carboxylic Acid).—Fr. oxalic acid w. glycerin, by heat; & o. proc.— $CH_2O_2$ , or,  $HCOOH$ .—Colorl. liq. above 8.3° C, but clear solid below; pungent odor; dangerously caustic.—*Misc.*, all prop. W., A., E., G.—*Boil.*, abt. 100.8° C. (Boilstein).—Caustic; Antisept.—*Caut.* Handle w. care. Great pain & ulceration by contact w. skin.

do. Merck.—Sp. Gr. 1.2=24° Bé.—Pure (3 Abt. 85%  $HCOOH$ ).—*Boil.* 107.1° C.—Caustic; Antisept.

do. Merck.—Sp. Gr. 1.18=22° Bé.—Pure (2 Abt. 80%  $HCOOH$ ).

do. Merck.—Sp. Gr. 1.15=19° Bé.—Pure (2 Abt. 65%  $HCOOH$ ).

do. Merck.—Sp. Gr. 1.12=15.5° Bé.—Pure (2

Abt. 50%  $HCOOH$ .—*Uses*: Mannf. of salts and esters of formic acid, and in electroplating.

do. Merck.—Sp. Gr. 1.06=8.5° Bé.—Pure (1

Abt. 25%  $HCOOH$ .—Colorl. liq.—*Misc.*, all prop. W., A., G.—*Diur.*; Ton.; Antirheum.—*Uses*: Rheum., neuralg., diabetes, tremor, etc.—*Dose* 1-5 m (0.06-0.3 Cc.).

## Acid Fuchsine.—see Ruby S

## Acid Fuchsine, Weigert's.—see Weigert's Acid Fuchsine

## Acid Fumaric Merck (80

(Allomaleic Acid).—Fr. *Fumaria officinalis*, L., & o. plants, or by str'ly heat. malic acid.— $C_4H_4O_4$ , or,  $C_2H_2(COOH)_2$ .—Wh. cryst.—*Sol.* W., A.—*Melt.* 200° C. w. part. fus. & decomp.

## Acid Gallamic Merck (12

$(OH)_3C_6H_2CO.NH_2 + H_2O$ .—Yellowish cryst.—*Sol.* W., A.—*Melt.*, above 230° C., with decomp.

## Acid Gallic Merck (1

(Trioxybenzoic, or Trihydroxybenzoic, Acid).—

Us'ly fr. tannic acid.— $C_7H_6O_5 + H_2O$ , or,  $C_6H_2(OH)_3COOH + H_2O$ .—Colorl. or slightly yellowish, silky, interlaced need; odorl.; astring., sl. acidul. taste; perm't in air.—*Sol.* 5 A., 40 E., 12 G., C, abt. 100 W.—*Melt.* 222-240° C. w. decomp.—Antisudor.; Hemost., & Antisept.—*Uses*: *Extern.*, gonorr., epist., alopecia, purpura, menor., & hemorrhoids.—*Intern.*, hematem., hematuria, night-sw., pyrosis, & intest. hemorrhage. Pref. to tannin in action; no constip.—*Techn.*, in dyeing, manuf. ink, in photography, & in manuf. pyrogallol.—*Dose* 5-20 grains (0.3-4.3 Gm.) several t. p. d.—*Incomp.*, aqu. solut. decomp. in air; ferric salts (bluish-black precip.); potass. chlorate and permanganate; ammonia; lead acetate; opium in solut.; silver salts.—*Caut.* Keep dark & from contact w. vapors of ammonia.

## Acid Gallic Merck.—Reagent (2

$C_7H_2(OH)_3COOH + H_2O$ .—Colorl. or sl. yellowish need. or prisms.—*Melt.* 220° C. w. decomp.—*Sol.* 130 cold & 3 boil. W.; 3 A.; 40 E.—*Tests*: (*Solut.*) 1 Gm. compl. sol. in 20 Cc. W. w. heat; solut. colorl. or only faintly yellowish.—( $H_2O$ ) dry 1 Gm. at 100° C. to const. wt.—loss not more than 0.1 Gm.—( $H_2SO_4$ ) 1 Gm. + 50 Cc. W. + 1 Cc.  $HCl + BaCl_2$ —no ppt. ( $BaSO_4$ ) within half hr.—(*Inorgan. Impur.*) ignite 1 Gm.—no whible res.—*Uses*: Detect. iron compounds & free mineral acids.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## Acid Gallotannic.—see Acid Tannic

## Acid Gallotartaric Merck (200

Mixt. of gallic and tartaric acids.—Yellowish powd.—*Sol.* W.

## Acid Gamma-isotropic.—see Acid Truxillic, Alpha-

## Acid Gentianic.—see Gentisin

## Acid Gentianic, Crude.—see Gentianin

## Acid Germanic.—see Germanium Oxide

## Acid Gluconic Merck (120

(Dextronic, Maltonic, or Pentahydroxycaaproic, Acid).—Oxidation prod. of glucose and cane sugar.— $OH.CH_2(CH_2OH)_4CO_2H$ .—Colorl. to yellowish, syrupy mass.—*Sol.* W.; insol. A.—*Uses*: In diabetic coma in l'ge doses (13-18 dr. [50-70 Gm.]) togeth. w. sod. bicarb., suspended in water and given per os and per enema.

## Acid Glutaric Merck (400

(Normal Pyrotartaric Acid).—Fr. oxyglutaric acid by heat. w. hydriodic acid; & o. ways.— $C_5H_8O_4$ , or,  $COOH.(CH_2)_3.COOH$ .—Colorl. cryst.—*Sol.* W., A.—*Melt.* 97° C.—*Boil.*, above 290° C., w. decomp.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Acid Glyceric Merck** (80)

(Dioxypropionic, Alphabetadioxypionic, or Glycerinic, Acid).—Fr. glycerin, by nitric Acid.— $C_3H_6O_4$ , or,  $COOH.CH(OH).CH_2OH$ .—Oily, alm. colorl. liq.—*Misc. W.*, A.; insol. E.

**Acid Glycerinocarbollic** (1100)

Fr phenol w. glycerin.—*Sol. W.*, A.—Antisep.; Disinf.

**Acid Glycerinophosphoric Merck** (20)

Fr. glycerin w. phosph. acid.— $C_3H_5PO_6 + aq.$ , or,  $H_2PO_4.C_3H_5(OH)_2 + aq.$ —Colorl. or pale yellow, oily liq.; distinctly sour taste.—*Sp. Gr.*, abt. 1.125.—*Sol. W.*, A.—Directly absorbable Nerve Nutritive.—*Uses*: Neurasthenia, phosphaturia, tabes dorsalis, &c.; used only in form of its salts (amm., calc., iron, potass., sod., &c.).

**Acid Glycocholic Merck** (400)

("Cholic Acid" of Strecker & Gmelin; diff. fr. Cholalic Acid).—Chief constituent of ox-gall.— $C_{26}H_{43}NO_6$ .—Wh., amorph. powd.; solut. bitter-sweet.—*Sol. A.* & alkalis; v. sl. *W.*, E.; readily in taurocholic-acid solut.—*Melt.* 133° C. Decomp. at 140° C.—Antisep.—*Uses*: Physiol. chem.

**Acid Glycolic Merck** (80)

(Glycollic, Oxyacetic, or Hydroxyacetic, Acid).—Fr. monochloroacetic acid by boil. w. water; & o. ways.— $C_2H_3O_3$ , or,  $CH_2OH.COOH$ .—Colorl. cryst.—*Sol. W.*, A., E.—*Melt.* 79–80° C.

**Acid Green G G Merck** (10)

(Sodium salt of Diethylidibenzylidiaminotriphenylcarbinoltrisulphonic Acid).—Brownish-black powd.—*Sol. W.* & A.—*Uses*: Dyeing wool and silk.

**Acid Guaiaconic Merck** (200)

Brown, resinous powd.—*Sol. A.*

**Acid Gummic.**—see **Acid Arabic****Acid Gymnemic Merck** (400)

Fr. lvs. *Gymnema sylvestris*, R. Br.— $C_{32}H_{55}O_{12}$ .—Yellow, amorph. powd.; charact., harsh, acidul. taste.—*Sol. A.*, C.; sl. *W.* or E.—Obtunds taste.—*Uses*: Checks taste for bitter or sweet, but not for sour, astring., or pung.—*Appl.*, in 1–5% alcoh. solut. as mouth-wash, or on tea-leaves saturated with a 2% solut.

**Acid Gynocardic Merck** (25)

Fr. oil of seed of *Gynocardia odorata*, R. Br.— $C_{14}H_{21}O_2$ .—Gray to yellowish-wh., fatty masses; peculiar odor; acid taste.—*Sol. A.*, oils.—*Melt.* 30° C.—Dermic; Alter., & Antituberc.—*Uses*: In leprosy, tuberculosis, syph., & rheumat.—*Dose*  $\frac{1}{2}$ –3 grains (0.03–0.2 Gm.), in caps.—*Appl.* 5–10% oily linim.—*Max. D.* 15 grains (1 Gm.).

**Acid Heptadecolic.**—see **Acid Margaric**

**Acid Heptolic, Normal.** } —see **Acid Oenanthic**  
**Acid Heptylic.** }

**Acid Hexoic.** } —see **Acid Caproic, Normal**  
**Acid Hexylic.** }

**Acid Hippuric Merck.**—Cryst. (25)

(Benzoylaminoacetic, or Benzaminoacetic, Acid; Benzoylglycine; Benzoylglycocol).—Fr. urine of herbivora.— $C_9H_9NO_3$ , or,  $COOH.CH_2-NH.CO.C_6H_5$ .—Wh. cryst.; horse-urine odor; sl'y bitter taste, str'ly reddens litmus.—*Sol. W.* cont. sod. phosphate; boil. *W.*, hot A.; sl. in cold *W.*—*Melt.* 187° C. Decomp. at h. temp.—Antirheum.; Antipodagric; Alter., &c.—*Uses*: Various therap. & chem. salts; not used uncommon.

**Acid Homotoluylic.**—see **Acid Hydrocinnamic****Acid Humic Merck** (60)

(Humic Acid).—By decomp. org. substes., partic. dead plants. Us'y fr. turf.— $C_{40}H_{26}O_{13}$ (?).—Dark brown or blackish, amorph. mass; acidul. taste; hygrosc.—Insol. *W.* in pres. of acids.

**Acid Hydriodic Merck.**—*Sp. Gr.* 2.0 = 72.5° Bé. (12)

(Hydrogen Iodide).—H'y conc. (abt. 96%) solut. of hydriodic acid gas, w. some free I.—III + aq.—Colorl. to brown, str'ly acid, fum. liq.—*Misc.*, all prop. *W.*, A.—Decomp. in light & air.—*Caut.* Poison! Keep dark.

**do. Merck.**—*Sp. Gr.* 1.70 = 60° Bé. (9)

Abt. 52% solut., w. some free I.—III + aq.—Colorl. to brown, str'ly acid, fum. liq.—*Caut.* Keep dark.

**do. Merck.**—*Sp. Gr.* 1.50 = 49° Bé. (7)

Abt. 43% solut., w. some free I.—III + aq.—Colorl. to brown, str'ly acid, fum. liq.—Antirheum., &c.—*Uses*: Rheumat., bronch. (ac. or chr.), asth., syph., obes., psoriasis, &c. Elim. mercury or arsenic fr. system; hasten. convalesc. fr. measles & pneum.—*Dose* 5–10 m (0.3–0.6 Gm.) in much sweet. *W.*—*Caut.* Keep dark.

**Acid Hydriodic Merck.**—Reagent (10)

III.—Clear, colorl. liq.; becomes rapidly yellow to brown on expos. to light & air.—*Sp. Gr.* 1.5.—Abt. 43% III.—*Tests*: (*Res.*) evap. 5 Gm.—none whble.—( $H_2SO_4$ ) 5 Gm. + 50 Ce.  $H_2O$  +  $BaCl_2$ —no ppt. of  $BaSO_4$  in 12 hrs.—(*Heavy Met. & Earths*) dil. 10 Gm. w. 100 Ce. *W.* & pass in  $H_2S$  gas—no colored ppt.; add excess  $NH_4OH$ —no react. on further addit. of  $(NH_4)_2H_2O_2$  or  $(NH_4)_2C_2O_4$ .—(*HCl; HBr*) 1 Gm. + 20 Ce.  $H_2O$  + excess  $AgNO_3$  + 30 Ce.  $NH_4OH$  (sp. gr. 0.96), shake, filter, & add  $HNO_3$ —only sl. turbid., but no ppt.—*Uses*: Reduc. agent in investigation of organic bodies; detect.  $HNO_3$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 8000 & over=Very Expensive Articles.



**Acid Hydriodic Merck.**—Reagent.—Sp. Gr. 1.70.

For methoxyl determin. acc. to Zeisel (25

Yellow or brownish liq. Abt. 57% HI

*Tests:* As of preceding

*Note:*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Hydrobromic Merck.**—Sp. Gr. 1.78—64° Bé. (4

(Bromhydric Acid; Hydrogen Bromide).—Satur. solution (52%);  $\text{HBr} + \text{aq.}$ —Fum. liq.; str'ly acid.—*Misc.*, all prop., W., A.—*Caut.* Poison!

**do. Merck.**—Sp. Gr. 1.49 = 48.5° Bé. (3  
Strongest form of hydrobromic acid procurable by distil. (48%).— $\text{HBr} + \text{aq.}$ —Str'ly acid., clear, fum. liq.—*Caut.* Poison!

**do. Merck.**—Sp. Gr. 1.38 = 40° Bé. (3  
40%  $\text{HBr} + \text{aq.}$ —Caustic.—*Uses:* *Extern.*, dil. w. 5 parts W., in diphth.

**do. Merck.**—Conc.—Sp. Gr. 1.31 = 34° Bé. (1  
34%  $\text{HBr} + \text{aq.}$ —Clear, colorl. liq.; str'ly acid.; compl. volat. w. heat.—*Misc.*, all prop. W., A.—*Nerv.*—*Uses:* *Nerv.* affect., whoop-cough, vomit., bronch. & laryng. catarrh, cereb. hyperemia, epilepsy, musc. spasm, hemiplegic chorea, neural., tinnitus & headache after quinine, &c.—*Dose* 30–90 ml (1.8–5.5 Ce.) in sweet W.—*Antid.*, magnes. carbonate or hydroxide, & alkali carbonates & bicarb.

**do. Merck.**—Sp. Gr. 1.208 = 24° Bé. (1  
25%  $\text{HBr} + \text{aq.}$ —Clear, colorl. liq.; str'ly acid.; compl. volat. w. heat.—*Misc.*, all prop. W., A.—*Nerv.*—*Uses:* *Nerv.* affect., whoop-cough, vomit., bronch. & laryng. catarrh, cereb. hyperemia, epilepsy, musc. spasm, hemiplegic chorea, neural., tinnitus & headache after quinine, &c.—*Dose* 30–90 ml (1.8–5.5 Ce.) in sweet W.—*Antid.*, magnes. carbonate or hydroxide, & alkali carbonates & bicarb.

**do. Merck.**—Fothergill.—Sp. Gr. 1.1 = 13° Bé. (1  
13%  $\text{HBr} + \text{aq.}$ —*Dose* 20–60 ml (1.3–4 Ce.) in sweet W.

**do. Merck.**—Diluted.—Sp. Gr. 1.077 = 10° Bé. (1  
10%  $\text{HBr} + \text{aq.}$ —Clear, colorl. liq.; str'ly acid.; compl. volat. w. heat.—*Misc.*, all prop. W., A.—*Nerv.*—*Uses:* *Nerv.* affect., whoop-cough, vomit., bronch. & laryng. catarrh, cereb. hyperemia, epilepsy, musc. spasm, hemiplegic chorea, neural., tinnitus & headache after quinine, &c.—*Dose* 30–90 ml (1.8–5.5 Ce.) in sweet W.—*Antid.*, magnes. carbonate or hydroxide, & alkali carbonates & bicarb.

**Acid Hydrobromic Merck.**—Reagent (4

$\text{HBr}$ .—Clear, colorl., or faintly yellow liq.—Sp. Gr. 1.38.—Abt. 40%  $\text{HBr}$ .—*Tests:* (Res.) evap. 10 Gm. on W.-bath—resid. not to weigh more than 0.0005 Gm.—( $\text{H}_2\text{SO}_4$ ) 5 Gm.+50 Ce. W.+ $\text{BaCl}_2$ —no  $\text{BaSO}_4$  ppt. in 12 hrs.—(*Heavy Met.*) a: 10 Gm.+50 Ce. W. overlaid on aqu.  $\text{H}_2\text{S}$ —no color or yellow ring at contact point in 1 hr.; b: 20 Ce.+20 Ce. W.+30 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96)+few drops  $(\text{NH}_4)\text{HS}$  &  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ —no brown color, or a ppt.; c: 5 Gm.+25 Ce. W.+few drops  $\text{KSCN}$ —no red color.—( $\text{HCl}$ ) a: 2–3 drops+4 Ce. W.+15 Ce. decinorm.  $\text{AgNO}_3$ +6 Ce. solut. ammon. carb. (1 ammon. carb.+1  $\text{NH}_4\text{OH}$  [sp. gr. 0.96] + 3 W.), shake 5 min. & filter—no turbid. on add.  $\text{HNO}_3$ .—(*HI*) 5 drops+5 Ce. W.+10 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96)+1 drop  $\text{AgNO}_3$ ; shake—must be clear, or but v. faint.

turbid, b: 5 Ce.+5 Ce.  $\text{CHCl}_3$ +1 drop  $\text{FeCl}_3$ ; shake— $\text{CHCl}_3$  not colored violet.—( $\text{H}_3\text{PO}_4$  &  $\text{H}_2\text{PO}_4$ ) 1 Gm.+1 Ce.  $\text{HNO}_3$  (sp. gr. 1.53); boil; cool; add 4 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96)+1 drop  $\text{MgSO}_4$ —no ppt. in 2 hrs.—*Uses:* Solvent for monosulphides of heavy metals ( $\text{Hg}$ ,  $\text{Cu}$ , &  $\text{Pb}$ ), & detect. sulphur.

*Note:*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Hydrochloric.**—Sp. Gr. 1.19 = 23° Bé.—40° C. (1

**do.**—Sp. Gr. 1.16 = 20° Bé.—Pure.—"C. P." (1

(Chlorhydric, or Muriatic, Acid; Hydrogen Chloride).—*Etymol.*: Fr. "chlorine" the element discovered by Sir H. Davy in 1810, the name being derived fr. Grk. "chloros," green, because of the color of the gas.—Abt. 32%  $\text{HCl}$  by wt.+aq.—Clear, colorl., pung., fum. liq.; str'ly acid.—*Misc.*, all prop., W., A.—*Antisept.*; *Antipy.*; *Caustic.*—*Uses:* *Intern.*, fevers, dyspep., syph., eczema, psoriasis, &c.—*Extern.*, mouth-wash and gargle in 1–2% solut.—*Dose* 5–10 ml (0.3–0.6 Ce.) in much W.—*Antid.*, magnesia, alkali carbonates, albumin, ice, &c.—*Incomp.*, alkalies, silver salts, chlorates, chromates, oxides, permanganates, tartar emetic, salts of lead, &c.—*Caut.* Poison!

**do.**—Sp. Gr. 1.124 = 16° Bé.—25% C. (1

**do.**—Diluted.—Sp. Gr. 1.050 = 7° Bé. (1  
10%  $\text{HCl}$ .—*Uses:* In dyspep., fevers, some skin dis., &c.—*Dose* 10–30 ml (0.6–2 Ce.) in sweet W.

**do.**—20° Bé.—Crude.—Free fr. Arsenic (1  
33%—Freed fr. arsenic by fract. distil. w. ferrous chloride.—Pale yellow, transp., fum. liq.; str'ly acid.—*Uses:* In anal. & chem. manuf.

**do.**—20° Bé.—Crude (1  
33%—Pale yellow, transp., fum. liq.; str'ly acid.—*Uses:* Techn.

**Acid Hydrochloric Merck.**—Reagent.—Diluted (1

Clear, colorl. liq.—Sp. Gr. 1.124.—25%  $\text{HCl}$ .—*Tests:* As under Acid Hydrochloric, Fuming, using 15 Gm. 25% acid, however, instead of 10 Gm. fuming acid.

*Note:*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.**—Reagent.—Fuming (1

$\text{HCl}$ .—Clear, colorl. liq.; fumes in air.—Sp. Gr. 1.19.—Abt. 37%  $\text{HCl}$ .—*Tests:* ( $\text{H}_2\text{SO}_4$ ) evap. 100 Gm. in platin. dish to abt. 5 Ce.; dil. w. W.; add  $\text{BaCl}_2$ —no  $\text{BaSO}_4$  ppt. in 12 hrs.—(Res.) evap. 20 Gm. in platin. dish on W.-bath—none whible.—(Cl) 5 Gm.+50 Ce. W.+solut. zinc iodide-starch—no blue color in 10 min.—( $\text{H}_2\text{SO}_4$ )

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



add 5 Gm. HCl+50 Cc. W. to 50 Cc. W.+1 drop decimorm. I+few drops starch solut.—blue color not dischd.—(*Heavy Met.*) *a*: 20 Gm.+200 Cc. W.; warm; pass in  $H_2S$  gas for 20 min.—no ppt. in 2 hrs.; *b*: 20 Cc.+200 Cc. W.+50 Cc.  $NH_4OH$  (sp. gr. 0.96)+few drops  $(NH_4)HS$ —no dark color or ppt.; *c*: 5 Gm.+20 Cc. W.+few drops KSCN—no reddish color.—(*Ca*) 20 Cc.+20 Cc. W.+50 Cc.  $NH_4OH$  (sp. gr. 0.96)+few Cc.  $(NH_4)_2C_2O_4$ —no ppt. in 2 hrs.—(*As*) evap. 200 Gm.+0.1 Gm.  $KClO_3$  on W.-bath; start Marsh apparat. using 20 Gm. As-free gran. Zn+dil. (1:5)  $H_2SO_4$ ; add evap'n resid. to contents of apparat.—after 1 hr. only hazy deposit at most, but no distinct As mirror.—*Uses*: Forensic investigations, &c.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Hydrochloric Merck.—Reagent.—Sp. Gr. 1.050** (1)

Clear, colorl. liq.—Sp. Gr., abt. 1.050.—Abt. 10% HCl.—*Tests*: As under Acid Hydrochloric, Fuming, Reagent, but using 35 Gm. of the 10% acid instead of 10 Gm. of the fuming acid.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Hydrocinnamic Merck** (80)

(Hydrocinnamyllic, Benzylacetic, Betaphenylpropionic, or Homotoluylic, Acid).—Deriv. of cinnamic acid.— $C_9H_9O_2$  or  $C_6H_5(CH_2)_2COOH$ .—Wh., acic. cryst.—*Sol.* 6 A.; E.; sl. W.—*Melt.* 48–49° C.—*Boil.* 280° C.—Antituberc.—*Uses*: Pulmonary tuberculosis.—*Dose* 10–20  $\mathfrak{m}$  (0.6–1.3 Cc.) of conc. alcoh. solut. (1:6) 3 t. p. d. in W.

**Acid Hydrocinnamyllic.—see Acid Hydrocinnamic**

**Acid Hydrocyanic.—10%** (8)

(Cyanhydric, or Prussic, Acid; Hydrogen Cyanide; Formonitrile).—Fr. potass. ferrocyan., by sulphuric acid.— $HCN$ +aq.—*Etymol.*: Fr. "cyanogen" (so named by Gay-Lussac in 1815), derived fr. Gr. "kyanos," blue, and "gennao," I make, referring to its being a constituent of Prussian blue.—Colorl. liq.; odor & taste of bitter almonds. Vapor is fatal, if breathed.—*Sol.* W., A., E.—*Uses*: Chem.—*Caut.* Extremely poisonous! Unstable & volatile. Keep cool, in the dark, & well stoppered.

**do.—5%** (5)

*Uses*: Chem.

**do. Merck.—Diluted.—2%** (1)

Colorl. liq.; odor & taste of bitter almonds.—*Misc.* W., A., E.—*Uses*: *Intern.*, allay pain & spasms, relieve nerv., cough, palpit. & painful affect. of stomach; vomiting, whoop-cough.—*Extern.*, control itching of skin.—*Dose* 2–5  $\mathfrak{m}$

(0.12–0.3 Cc.) 3 or 4 t. p. d. in water after meals.—*Appl.*, abt. 30–60  $\mathfrak{m}$  (2–4 Cc.) in abt. 1 fl. oz. rose W. as lotion, where skin is intact.—*Max.* D. 10  $\mathfrak{m}$  (0.6 Cc.).—*Antid.*: Kobert recommends  $\frac{1}{60}$  grain (0.001 Gm.), atropine hypoderm., peroxide of hydrogen intern., & artificial respiration; breathing ammonia or chlorine from chlorinated lime; ferrous sulphate followed by potass. carbonate, emetics, warmth.—*Incomp.*, alkalies, silver nitrate, metallic oxides, or carbonates, neutral solut. of morphine salts.—*Caut.* Poisonous! Keep cool, dark, & well stop'd.

N. B.—Dil. Hydrocyanic Acid is very liable to decomposition, by which it becomes more or less brown in color, & it is entirely unfit for use when thus discolored. No way of preventing this decomposition, without the addition of foreign substances (which is not recognized by the U. S. P.), has yet been discovered.

**Acid Hydroferrocyanic.—see Acid Ferrohydrocyanic**

**Acid Hydrofluoboric.—see Acid Borohydrofluoric**

**Acid Hydrofluoric Fuming Merck.—40%** (2)

(Fluorhydric Acid; Hydrogen Fluoride).—Fr. calcium fluoride, by sulphuric acid.—HF.—*Etymol.*: Lat. "fluor," a flow, referring to the property of fluorspar, its source, to serve as a flux.—Clear, colorl., or sl'y colored, mobile, fum., corros. liq.—*Misc.*, all prop., W., A.—*Uses*: To arrest undesirable ferment. (Effront's method) in brewing (preventing the formation of pernicious quantities of lactic- and butyric-acid-yielding organisms), is used in proport. of 8–10 Gm. per hectol.; also employed in yeast manuf. for similar reasons, and in beet-sugar manuf. for the destruct. of Clostridium butyricum; preserv. anatomical specimens; etching glass and enamel.

**do. Merck.—40%, Medicinal.—Free fr. Arsenic** (2)

Antituberc.; Antisep.—*Uses*: *Intern.*, inhal. in phth., in 15, 20, or 30% aq. solut.—*Extern.*, highly dil., or better, neutral, forms good anti-sep. dress. for surg. use.—*Caut.* Handle with care. Makes serious ulcers on skin. Attacks glass, stoneware, &c. Keep in rubber, gutta-percha, leaden, or paraffin-paper, bottles.

**do. Merck.—Highest Purity.—40%** (3)

**do. Merck.—Conc.—55%** (2)

Sl'y colored, fum. liq.; very corros.—*Misc.*, all prop. W.—*Uses*: Etching glass.

**Acid Hydrofluoric Merck.—Reagent.—Fuming (2**

HF.—Colorl. or alm. colorl. liq.; 38–40% HF.—*Tests*: (*Res.*) evap. 20 Gm. in platin. dish & gently ignite—at most 0.001 Gm. res.—( $H_2SO_4$ ) evap. 2 Gm. in platin. dish; res.+10 Cc.  $H_2O$ +few drops  $HNO_3$ +solut.  $Ba(NO_3)_2$ —no immed. turb., & at most only sl. opalesc. after some time.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



—(Ca) 5 Gm. + 50 Cc.  $H_2O$  + excess  $NH_3$  + solut.  $(NH_4)_2C_2O_4$ —no immed. turb.—(Mg) 5 Gm. + 50 Cc.  $H_2O$  +  $NH_4OH$  (to alk.) + solut.  $(NH_4)_2HPO_4$ —no ppt. within 3 hrs.—(Heavy Met.) a: 10 Gm. + 40 Cc.  $H_2O$  + aqu.  $H_2S$ —no yellow or dark-colored ppt.; b: 5 Gm. + 50 Cc.  $H_2O$  +  $NH_4OH$  to alk. +  $(NH_4)HS$ —no green color, or ppt.—(HCl) 2 Gm. + 50 Cc.  $H_2O$  + few drops  $HNO_3$  + solut.  $AgNO_3$ —at most only sl. opalesce.—( $H_2SiF_6$ ) 5 Gm. + 20 Cc.  $H_2O$  + 2 Cc. cold satur. aqu. solut.  $KCl$  + 40 Cc. 85-% A.—no turb. or ppt.—Uses: Analysis of silicates.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Hydrofluosilicic.**—see **Acid Hydrosilicofluoric**

**Acid Hydrogen Carboxylic.**—see **Acid Formic**

**Acid Hydrosilicofluoric Merck.**—Sp. Gr. 1.3 = 33° Bé. (3)

(Hydrofluosilicic, or Silicofluoric, Acid).—Fr. silicon tetrafluoride by W.— $H_2SiF_6$  + aq.—Transp., colorl., fum. liq.; abt. 33°C; volat. at 49° C., without residue; str'ly acid.—Uses: Preservat. of tanning liquors.

do. Merck.—Sp. Gr. 1.157 = 19.5° Bé. (2)  
Abt. 20°C.—Uses: Anal.

do. Merck.—Sp. Gr. 1.06 = 8.5° Bé. (2)  
Abt. 8°C.—Uses: Techn.

**Acid Hydrosilicofluoric Merck.**—Reagent (4)

(Silicofluoric Acid).— $H_2SiF_6$ .—Clear, colorl. liq.; 7.5%  $H_2SiF_6$ —Sp. Gr., abt. 1.06.—Tests: (Res.) evap. 5 Gm. in platin. dish—none vghble.—(Heavy Met.) 5 Gm. + 10 Cc.  $H_2O$  + few drops  $HCl$  + 10 Cc. aqu.  $H_2S$ —no react.—( $H_2SO_4$ ) 5 Gm. + 10 Cc.  $H_2O$  + solut.  $Sr(NO_3)_2$  free fr. Ba—no ppt. within 12 hrs.—Uses: Separation of calcium & barium.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Hydrosulphuric.** } —see **Hydrogen Sul-**  
**Acid Hydrothionic.** } **phide Water**

**Acid Hydroxyacetic.**—see **Acid Glycolic**

**Acid Hydroxyethylenesulphonic.**—see **Acid Isethionic**

**Acid Hyocholic Merck** (500)

(Hyocholic Acid).—Deriv. of hyoglycocholic acid.— $C_{25}H_{40}O_4$ .—Yellow powd.—Sol. A., E.

**Acid Hyoglycocholic Merck** (200)

Fr. hog bile.— $C_{27}H_{43}NO_5$ .—Yellowish-brown powd.—Sol. W., A., in solut. of alkalies or alkali carbonates.—Melt. 100° C.

**Acid Hypophosphorous Merck.**—Sp. Gr. 1.274 = 31° Bé. (3)

$H_3PO_3$  + aq. or,  $HP(OH)_2$  + aq.—50°C.—Clear, colorl. liq.; odorl.; sour.—Misc., all prop. W.—Decomp. at h. temp.—Stim.; Tonic.—Uses: Wasting & nerv. dis.—Dose 2–10  $\mathcal{M}$  (0.12–0.6 Cc.) well diluted.—Caut. Keep dark & well stoppered.

do. Merck.—Sp. Gr., 1.15 = 19° Bé.—abt. 35°C (2)

do. Merck.—30°C (2)  
Sp. Gr., abt. 1.130 at 25° C.

do. Merck.—Diluted.—Sp. Gr. 1.046 = 6.5° Bé. (1)

10°C.—Stim.; Tonic.—Uses: Wasting & nerv. dis.—Dose 10–60  $\mathcal{M}$  (0.6–4 Cc.).

**Acid Indigosulphonic Merck** (60)

(Indigosulphuric, Indigotindisulphonic, Sulph-indigotic, or Sulphindyllic, Acid; Soluble Indigo Blue).—Fr. indigo & fum. sulphuric acid.— $C_{16}H_{10}S_2N_2O_8$ , or,  $C_{16}H_8(HSO_3)_2N_2O_2$ .—Amorph., blue solid, or paste.—Sol. W., A.—Uses: Techn., reagent, dyeing, &c.

**Acid Indigosulphuric.** } —see **Acid Indigo-**  
**Acid Indigotindisulphonic.** } **sulphonic**

**Acid Iodic Merck.**—Pure, cryst. (20)

Fr. iodine by oxid'n.— $HIO_3$ .—Colorl., cryst. powd.—Sol. W.; alm. insol. A., E., G.—Caustic; Astring.; Antisep.; Hemost.; Antimet.—Uses: Intern., as succedaneum for potass. iodide.—Extern., in ophthalmol. in form of pencils cont. 15%  $HIO_3$ , or as 1–3% aqu. solut. in trachoma, pannus, indolent corneal ulcers, keratitis, etc.—Techn., oxidizer.—Appl., in gonorr. 10% solut. or oint.—Dose  $1\frac{1}{2}$ –3 grains (0.1–0.2 Gm.) well dil., 3 t. p. d. Usually used in medicine in form of its salts.

**Acid Iodic Merck.**—Reagent.—Cryst. (30)

$HIO_3$ .—Colorl., rhomb. cryst., or wh., cryst. powd.—Sol. 1 W.; diffic. A.—Aqu. solut. first reddens blue litmus paper, then bleaches it.—Tests: (Res.) heat 2 Gm.—none vghble.—(Solub.) 1 Gm. compl. solub. in 1 W.; solut. colorl.—Uses: Oxidizer, test for morphine & o. alkaloids, & prepar. volumetric solutions.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**(Acid) Iodic Anhydride Merck** (30)

(Iodine Pentoxide; so-called "Anhydrous Iodic Acid").—Fr. iodic acid by heat.— $I_2O_5$ .—Wh. powd.—Sol. W.—Decomp., without melt., at 300° C.—Uses: Intern., gastric hemorrhage, vomiting.—Extern., surgery, naso-laryngeal affect., gonorr., &c.—Techn., powerful oxidizer.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**(Acid) Iodic Anhydride Merck.**—Reagent (40)  
 $I_2O_5$ .—Wh., cryst. powd.—*Sol.* W. (w. form. of  $HI_2O_3$ ); insol. absol. A., E.,  $CS_2$ .—*Tests & Uses:* As of iodic acid.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Iodopropionic (Beta-) Merck** (90)  
 Deriv. of glyceric acid.— $C_3H_5IO_2$ , or,  $CH_2I.CH_2.CO_2H$ .—Yellowish cryst.—*Sol.* A., E., & hot W., C.; sl. cold W.—*Melt.*  $82^\circ C$ .

**Acid Iodosobenzoic Merck** (200)  
 $C_6H_4(IO)COOH$ , or,  $C_6H_4.IOH.O.CO$ .—Wh. cryst.—*Sol.*, sl. W., A., E.—*Melt.*  $244^\circ C$ .—Antiseptic, like iodoform.

**Acid Iodotannic (Solution) Merck** (2)  
 (Iodotannin).—Alcoholic solut. tannin to which iodine is added.—Dark-brown liq.—*Uses:* Inject. in gonorr. in 1-2% aq. solut.

**Acid Isatic (Anhydride).** } —see Isatin  
**Acid Isatic, Lactime.** }

**Acid Isatropic (Alpha-) Merck** (1000)  
 Fr. atropic acid, by heat.— $C_{15}H_{16}O_4$ , or,  $C_6H_5.C(COOH)CH_2.C_6H_4.CH(COOH)CH_2$ .—White cryst.—*Sol.* A., glacial acetic acid; sl. W.—*Melt.*  $237-238^\circ C$ .

**Acid Isatropic (Beta-) Merck** (1000)  
 Fr. atropic acid, by heat.— $C_{15}H_{16}O_4$ .—Cryst.—*Sol.* A., glacial acetic acid; boil. W.—*Melt.*  $206^\circ C$ .

**Acid Isethionic Merck.**—50% Solution (80)  
 (Ethylenehydriusulphonic, Hydroxyethylsulphonic, or Oxyethylsulphonic, Acid).—Fr. abs. alc., by sulphuric anhydride.— $C_2H_5SO_3$ , or,  $C_2H_4OH.SO_2OH$ .—Syrupy liq.—*Misc.*, all prop. W.

**Acid Isocaproic.**—see **Acid Butylacetic**

**Acid Isocyanuric.**—see **Acid Cyanuric**

**Acid Isodioxybehenic Merck** (100)  
 Fr. erucic acid & alkal. solut. potass. permang.— $C_{22}H_{42}(OH)_2O_2$ .—Yellowish cryst.—*Sol.*, hot A.—*Melt.*  $99^\circ C$ .

**Acid Isohexoic.**—see **Acid Caproic, Iso-**

**Acid Isonaphtoic.**—see **Acid Naphtoic, Beta-**

**Acid Isopentoic.**—see **Acid Valeric, Iso-, from Valerian Root**

**Acid Isophthalic.**—see **Acid Phtalic, Iso-**

**Acid Isopropylacetic.**—see **Acid Valeric, Iso-, from Valerian Root**

**Acid Isopropylbenzoic.**—see **Acid Cuminic**

**Acid Isopropylcarballylic.**—see **Acid Camphoronic**

**Acid Isopropylformic.**—see **Acid Butyric, Iso-**  
**Acid Isotartaric.**—see **Acid Metatartaric**

**Acid Isotrioxystearic Merck** (60)  
 Formed w. ricinolic acid by oxid'g castor oil w. alkal. solut. potass. permang.— $C_{15}H_{36}O_2$ , or,  $C_{15}H_{33}(OH)_3O_2$ .—Wh. cryst.—*Sol.* A., E.; insol. W.—*Melt.*  $111^\circ C$ .

**Acid Isotropic.**—see **Acid Tropic**

**Acid Isovaleric.**—see **Acid Valeric, Iso-, from Valerian Root**

**Acid Itaconic Merck** (100)  
 Fr. citric acid by dry distil.— $C_5H_6O_4$ , or,  $C_5H_4(COOH)_2$ .—Trimet., octah. cryst.; str'ly acid.—*Sol.* W., A., E.—*Melt.*  $161^\circ C$ .

**Acid Kakodylic.**—see **Acid Cacodylic**

**Acid Kinic.**—see **Acid Quinic**

**Acid Kresotic.**—see **Acid Cresotic**

**Acid Kresylic.**—see **Cresol**

**Acid Lactic Merck.**—U. S. P.—Sp. Gr. 1.206 at  $25^\circ C$ . =  $25^\circ B\acute{e}$ .—Highest Purity, Medicinal (1)

(Alpha-hydroxypropionic, or Ethylidenelactic, Acid).—Fr. milk- or grape-sugar by lactic ferment.— $C_3H_6O_3$ , or,  $CH_3.CH(OH).COOH$ .—Colorl., thick liquid; odorl.; acid; absorbs moisture from damp air;  $75^\circ C$ .—*Misc.* E.; all prop. W., A.; insol. C., carbon disulphide, petrol. benzin.—Caustic; Astring.; Digestive; Antidiab.—*Uses:* Dyspep., diar., croup, cholera, carcin.; solv. of false membr.—*Dose* 15-30 m (1-2 Cc.) several t. p. d., well dil.—*Appl.*, in 50-80% solut. as caustic, in tuberculous affections of mouth, esophagus, and larynx, in lupus and alopecia, in dentistry for removing tartar fr. the teeth, and also in purulent ear discharge.

do. Merck.—Sp. Gr. 1.16 =  $20 B\acute{e}$ .— $60^\circ C$  (1)

do. Merck.—Diluted, B. P. 1885 (1)

do. Merck.—Technical,  $50^\circ C$  (1)

Yellow liq.—*Sol.* A., W.—*Uses:* Techn., instead of tartar bath in dyeing, as mordant in printing woolen goods; solvent for water-insolub. dyes (alcohol-soluble induline, nigrosine, spirit-blue); reducer of chromic acid in mordanting wool; in brewing for acidulating worts; prepar'g yeast for remov. Clostridium butyricum; in tanning as mordant & decalcifier of hides.

**Acid Larulinic.**—see **Acid Levulinic**

**Acid Laricic.**—see **Acid Agaricic**

**Acid Lauric Merck** (70)  
 (Laurinic, Laurostearic, or Dodecoic, Acid).—Fr. bayberry & o. oils by saponif.— $C_{12}H_{24}O_2$ , or,  $C_{12}H_{23}COOH$ .—Yellowish cryst.—*Sol.* A., E.—*Melt.*, abt.  $43^\circ C$ .—*Boil.*  $225^\circ C$ .

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

**Acid Lepargylic.**—see **Acid Azelaic**

**Acid Levulinic Merck.**—Colorless, cryst. (50  
(Levulinic, or Beta-acetylpropionic, Acid).—Fr. cane sugar, starch, etc., by boil. w. v. dil.  $\text{H}_2\text{SO}_4$ .— $\text{C}_5\text{H}_8\text{O}_5$ , or,  $\text{CH}_3\text{CO}(\text{CH}_2)_3\text{COOH}$ .—Colorl. cryst.—*Sol.* W., A., E.—*Melt.* 33° C.—*Boil.* 239° C.—*Caution.* Keep well stoppered.

**Acid Lithic.**—see **Acid Uric**

**Acid Magenta.**—see **Ruby S**

**Acid Maleic Merck** (120  
(Maleinic Acid).—Fr. malic acid by distill.— $\text{C}_4\text{H}_4\text{O}_4$ , or,  $\text{COOH}(\text{CH})_2\text{COOH}$ .—Colorl. cryst.—*Sol.* W., A., E.—*Melt.* 136–137° C.—*Boil.* 160° C

**Acid Malic Merck.**—Pure, cryst. (25  
(Oxysuccinic, or Apple, Acid).—Fr. unripe fruits; usly of *Pyrus aucuparia*, Gaertner (Mountain ash).— $\text{C}_4\text{H}_6\text{O}_5$ , or,  $\text{COOH}(\text{CH}_2\text{CH}(\text{OH}))\text{COOH}$ .—Colorl. cryst.; agre. sour taste.—*Sol.* W.—*Melt.* 100° C.—*Antiscor.*: *Antipyr.*—*Appl.*, in 5% aqu. solut. as inhalat. in croup & diphth.

**Acid Malonic Merck** (25  
(Methanedicarboxylic Acid).—Fr. monochloroacetic acid, by potass. cyanide.— $\text{C}_3\text{H}_4\text{O}_4$ , or,  $\text{CH}_2(\text{COOH})_2$ .—Wh. cryst.—*Sol.* W., A., E.—*Melt.* 132–134° C.

**Acid Maltonic.**—see **Acid Gluconic**

**Acid Mandelic.**—see **Acid Amygdalic**

**Acid Margaric** (40  
(Margarinic, or Heptadecic, Acid).—By boil. cetyl cyanide & alcoh. potash.— $\text{C}_{17}\text{H}_{34}\text{O}_2$ , or,  $\text{C}_{16}\text{H}_{33}\text{COOH}$ .—Wh., transp. cryst., or wh. amorph. powd.—*Melt.* 59–60° C.—*Boil.* 277° C. at 100 Mm.

**Acid Meconic Merck.**—Cryst. (40  
Fr. opium.— $\text{C}_7\text{H}_4\text{O}_7 + 3\text{H}_2\text{O}$ , or,  $\text{OH}(\text{C}_6\text{H}_3\text{O}_2)(\text{COOH})_2 + 3\text{H}_2\text{O}$ .—Wh. cryst.; acid; non-poisonous.—*Sol.*, hot W. & hot A.; sl. cold W.; v. sl. cold A.—*Uses*: Effecting solutions of insolub. opium alkaloids.

**Acid Meconinic Anhydride.**—see **Meconin**

**Acid Mellie.**—see **Acid Mellitic**

**Acid Mellitic Merck** (1000  
(Mellie, or Benzenhexacarboxylic, Acid).—Fr. mellite (honey-stone).— $\text{C}_{12}\text{H}_6\text{O}_{12}$ , or,  $\text{C}_6(\text{COOH})_6$ .—Wh., cryst. powd.—*Sol.* W., A.

**Acid Menaphthoylic.**—see **Acid Naphtoic, Alpha-**

**Acid Mesaconic Merck** (100  
Fr. citraconic anhydride, by oxid'n w. nitric acid.— $\text{C}_8\text{H}_6\text{O}_4$ , or,  $\text{CH}_3\text{C}(\text{COOH})\text{CH}(\text{COOH})_2$ .—Colorl. cryst. powd.—*Sol.* A., E., W.—*Melt.* 200–202° C.

**Acid Meta-amidosalicylic. Hydrochloride**—see **Acid Amidosalicylic (Hydrochloride)**

**Acid Metacetic.**—see **Acid Propionic**

**Acid Metacopaivic.**—see **Acid Copaivic**

**Acid Metacresolinic.**—see **Acid Cresotic, Para-**

**Acid Metacresylic.**—see **Cresol, Meta-**

**Acid Metagummic.**—see **Cerasin from Gum**

**Acid Metahomosalicylic.**—see **Acid Cresotic, Meta-**

**Acid Metaiodo-ortho-oryquinolinesulphonic.**—see **Loretin**

**Acid Metakresotic.**—see **Acid Cresotic, Meta-**

**Acid Metanitrohydroxybenzoic.**—see **Acid Nitrosalicylic, Meta-**

**Acid Metanitrosalicylic, Vicinal.**—see **Acid Anilotic**

**Acid Metaoxyparatoluic.**—see **Acid Cresotic, Meta-**

**Acid Metaphosphoric.**—see **Acid Phosphoric, Meta-**

**Acid Metaphthalic.**—see **Acid Phthalic, Iso-**

**Acid Metapyridinecarboxylic.**—see **Acid Nicotinic**

**Acid Metarabic.**—see **Cerasin from Gum**

**Acid Metatartaric Merck** (240  
(Isotartaric Acid).—Fr. natural or dextrotartaric acid by fusion at 135° C.— $\text{C}_4\text{H}_6\text{O}_6$ , or,  $\text{C}_2\text{H}_3\text{O}_2(\text{COOH})_2$ .—Amorph., yellowish-white mass; sour taste.—*Sol.* W.

**Acid Metatitanic.**—see **Acid Titanic**

**Acid Metatoluyllic.**—see **Acid Toluic, Meta-**

**Acid Methanecarboxylic.**—see **Acid Acetic**

**Acid Methanedicarboxylic.**—see **Acid Malonic**

**Acid Methene (or methylene)protocatechuic.**—see **Acid Piperonylic**

**Acid Methoxybenzoic.**—see **Acid Anisic**

**Acid Methylacetic.**—see **Acid Propionic**

**Acid Methylaminoacetic.**—see **Sarcosin**

**Acid Methylaminocaproic.** { —see **Leucine**  
**Acid Methylaminopentonic.** {

**Acid Methylbenzoic.**—see **Acid Toluic, Ortho-**

**Acid Methylcrotonic.**—see **Acid Tiglic**

**Acid Methylenedigallic Merck** (120  
 $\text{CH}_2(\text{C}_6\text{H}_4[\text{OH}]\text{COOH})_2$ .—Wh., cryst. powd.—*Insol.* W.

**Acid Methylenchippuric.**—see **Hippol**

**Acid Methylguanidineacetic.**—see **Creatin**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Acid Methylparaoxybenzoic.*—see **Acid Anisic**  
*Acid Methylphenylformic.*—see **Acid Toluic, Ortho-**

*Acid Methylprotocatechuic.*—see **Acid Vanillic**

*Acid Methylsuccinic.*—see **Acid Pyrotartaric**

**Acid Methyltartaric Merck** (10)  
 $C_4H_2O_6 \cdot CH_3$ .—Colorl., viscid liq.—*Sol.* W., A.

**Acid Molybdic Merck.**—Reagent (3)  
 $H_2MoO_4$ .—Wh., or sl. yellowish powd.; abt. 85%  $MoO_3$ .—*Tests:* (*Solub. in  $NH_4OH$ ; Heavy Met.*) 2 Gm. + 10 Cc.  $H_2O$  + 5 Cc.  $NH_4OH$  (sp. gr. 0.91)—compl. solub., & clear solut.; add aqu.  $H_2S$ —sl. yellow color, but no green color, or ppt.—( $H_3PO_4$ ) as under molybdic anhydride.—*Uses:* Determ. phosphoric acid, Pb, Bi, &c.; Froehde's reagent; reagent for  $H_2O_2$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**(Acid) Molybdic Anhydride Merck.**—Abt. 100%  
 —Highest Purity (5)

(Molybdic Anhydride; Molybdenum Trioxide).— $MoO_3$ .—Yellowish-green to wh. powd.—*Sol.*, acids, alkalis & potass.-bitart. solut.; v. sl. W.

**do. Merck.**—Pure (3)  
 Yellowish-green to wh., heavy powd.—*Sol.*, acids.—*Uses:* Dyeing silk; manuf. of dyes.

**do. Merck.**—Fused (25)  
 Steel-gray, tabular pieces.

**do. Merck.**—Sublimed (100)

**(Acid) Molybdic Anhydride Merck.**—Reagent.—Free fr. Ammonia & Nitric Acid (6)

$MoO_3$ .—Sl. yellowish powd.; often exhibits bluish tint (presence of  $Mo_2O_3$ ).—Abt. 100%  $MoO_3$ .—*Tests:* (*Alkal.*) heat 1 Gm. in test-tube—particles adher. to heated portion begin to fuse at red heat; cryst. sublimed anhydride depos. in upper cooler part of tube; if alkalis present, whole melts to dark-colored mass (the melt-point is low).—( *$NH_4$  Salts*) heat 1 Gm. + solut.  $NaOH$  to boil—no  $NH_4OH$  evolved (test w. moist litmus paper).—(*Solub. in  $NH_4OH$ ; Heavy Met.*) 2 Gm. + 10 Cc.  $H_2O$  + 5 Cc.  $NH_4OH$  (sp. gr. 0.91); heat gently—compl. solub. & clear solut.; add aqu.  $H_2S$ —sl. yellow color, but no darker color within 10 min., & no ppt.—( $H_3PO_4$ ) 10 Gm. + 25 Cc.  $H_2O$  + 15 Cc.  $NH_4OH$  (sp. gr. 0.91) + 150 Cc.  $HNO_3$  (sp. gr. 1.153); let stand at abt. 40° C. —no yellow ppt. within 2 hrs.—( $HNO_3$ ) 1 Gm. + 10 Cc.  $H_2O$ ; shake; add fragment  $NaCl$  + 1 drop 1:1000 solut. indigo + 10 Cc. conc.  $H_2SO_4$ —blue color should not disappear.—*Uses:* Determ. phosphoric acid, Pb, Bi, &c.; Froehde's reagent; reagent for  $H_2O_2$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by

D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Monobromacetic Merck** (15)  
 (Bromacetic Acid).—By heat. acetic acid w. bromine. —  $C_2H_3BrO_2$ , or,  $CH_2Br \cdot COOH$ .—Colorl., deliq. cryst.—*Sol.*, hot W.—*Melt.* 51° C.—*Boil.* 208° C. w. part. decomp.—Eschar.; Antisep.—*Caut.* Keep fr. air & moisture.

**Acid Monobromobenzoic (Para-) Merck** (150)  
 (Monoparabromobenzoic Acid).—From parabromotoluene by oxid'n.— $C_6H_4BrO_2$ , or,  $C_6H_4Br \cdot COOH$ .—Colorl. or reddish cryst.—*Sol.* A., E.; v. sl. in W.—*Melt.* 251° C.

**Acid Monobromobutyric (Alpha-) Merck** (60)  
 Fr. butyric acid & bromine by heat. at 140° C.— $C_4H_7BrO_2$ , or,  $CH_3CH_2CHBr \cdot COOH$ .—Oily liq.—*Sp. Gr.* 1.54 at 15° C.—*Misc.* A., E.—*Boil.* 214–217° C.

**Acid Monobromopropionic Merck** (120)  
 (Alphamonobromopropionic Acid).—By heat. propionic acid w. bromine.— $C_3H_5BrO_2$ , or,  $CH_3CHBr \cdot COOH$ .—Colorl. liq.—*Sol.* W., A., E.—*Sp. Gr.*, abt. 1.69 at 15° C.

**Acid Monobromosuccinic Merck** (100)  
 (Bromosuccinic Acid).—By heat. succinic acid w. bromine.— $C_4H_5BrO_4$ , or,  $C_2H_3Br(COOH)_2$ .—Colorl. cryst.—*Sol.* W.—*Melt.* 159–160° C.

**Acid Monochloracetic Merck.**—Pure, crystallized (6)

By pass. chlorine into boiling acetic acid cont'g sulphur or iodine.— $C_2H_3ClO_2$ , or,  $CH_2Cl \cdot COOH$ .—Very deliq., colorl., cryst. mass.—*Sp. Gr.* 1.366 at 73° C.—*Sol.* W.—*Melt.* 63° C.—*Boil.* 186° C.—Caustic; Vesic.—*Uses:* Warts, corns, &c.—*Appl.*, in conc. solut.—*Caut.* Handle carefully!

**do. Merck.**—Techn. (2)

*Acid Monoiodo-orthohydroxybenzoic.*—see **Acid Monoiodosalicylic**

**Acid Monoiodosalicylic Merck** (60)  
 (Monoiodo-orthohydroxybenzoic Acid).—Fr. salicylic acid & iodine, by boil. w. alc.— $C_7H_5IO_3$ , or,  $C_6H_4CO_2H \cdot OH \cdot I$  [1:2:3].—Colorl. cryst.—*Sol.* A., E.; v. sl. W.—*Melt.* 198° C.—Antirheum.—*Uses:* Ac. artic. rheumat.—*Dose* 15–45 grains (1–3 Gm.) per day.

*Acid Monoparabromobenzoic.*—see **Acid Monobromobenzoic, Para-**

*Acid Mori(or -in)tannic.*—see **Maclurin**

**Acid Mucic Merck.**—Pure (12)  
 (Saccharolactic Acid).—By oxid'g lactose w. nitric acid.— $C_6H_{10}O_8$ .—Wh., cryst. powd.—*Sol.*, in hot W.—*Melt.* 213° C.

*Acid Murialic.*—see **Acid Hydrochloric**

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

**Acid Myristic Merck** (80)  
Fr. nutmegs. —  $C_{14}H_{28}O_2$ , or,  $C_{13}H_{27}COOH$ . — Colorl. cryst. — *Sol.* A., E. — *Melt.*  $54^{\circ}C$ . — *Boil.*  $248^{\circ}C$ . at 100 Mm.

**Acid Naphthalic** — see **Acid Phtalic**

**Acid Naphthalenealphacarboxylic** — see **Acid Naphtioic, Alpha-**

**Acid Naphtionic** — see **Acid Naphtylaminesulphonic, Alpha-**

**Acid Naphtioic (Alpha-) Merck** (160)  
(Naphthalenealphacarboxylic, or Menaphtoxyl-ic, Acid). — By saponifying alphanaphtonitrile. —  $C_{11}H_8O_2$ , or,  $C_{10}H_7COOH$ . — Colorl. cryst. — *Sol.* A., E.; v. sl. W. — *Melt.*  $160^{\circ}C$ . — *Boil.*  $300^{\circ}C$ . — *Uses:* *Medic.*, as antisept. — *Techn.*, in manuf. of aniline dyes.

**Acid Naphtioic (Beta-) Merck** (160)  
(Isonaphtioic Acid). — By saponif. betanaphtonitrile. —  $C_{11}H_8O_2$ , or,  $C_{10}H_7COOH$ . — Yellow cryst. — *Sol.* A., E. — *Melt.*  $182^{\circ}C$ . — *Boil.*, above  $300^{\circ}C$ . — *Uses:* *Techn.*, like alphanaphtioic acid.

**Acid Naphtylaminesulphonic (Alpha-) Merck.** — Highest Purity (12)

(Naphtionic, or Alphanaphtylamine-alphasulphonic, or Sulphonaphtylaminic, Acid). — Fr. alphanaphtylamine sulphate by heat. —  $C_{10}H_9NSO_3$ , or,  $C_{10}H_6(NH_2)(SO_3H)$ . — Wh. cryst. or powd.; solutions fluoresce deep reddish-blue. — *Sol.*, v. sl. in W. and A. — Carbonizes at h. temp. without melt. — *Uses:* *Techn.*, manufacture of azo dyes.

do. Merck. — Commercial (3)

**Acid Naphtylaminesulphonic (Alpha-) Merck.** — Reagent (15)

(Alphanaphtylaminesulphonic Acid; Naphtionic Acid). —  $C_{10}H_6(NH_2)[1].(SO_3H)[4] + \frac{1}{2}H_2O$ . — Wh. powd., or sm., lustr., colorl. need. (when cryst. fr. hot W.); carbonize on heat., without melt. — *Sol.*, abt. 4000 cold W.; more read. hot W.; sl. A.; insol. E. — *Solut.* in  $NH_4OH$  exhibits violet fluoresce. — *Uses:* detect. & colorimetr. determ. minute quant.  $HNO_3$ .

*Note.* — For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Naphtylaminesulphonic (Beta-) Merck** (3)  
(Brönnner's Acid). —  $C_{10}H_9NSO_3 + H_2O$ . — Wh. to sl. pink, silky leaflets. — *Sol.* 25,000 cold W. — *Aqu. solut.* fluorescent.

**Acid Nicotinic Merck** (1000)  
(Metapyridinecarboxylic, or Betapyridinecarboxylic, Acid). — Fr. quinolinic & hydrochloric acids. —  $C_7H_7NO_2$ , or,  $C_7H_5N.CO_2H$ . — Colorl. cryst. — *Sol.*, hot W., hot A.; v. sl. cold W. or E. — *Melt.*  $228^{\circ}C$ .

**(Acid) Niobic Anhydride Merck** (600)  
(Niobium Pentoxide). —  $Nb_2O_5$ . — Wh., micro-cryst. powd.; becomes yellow on being heated.

— *Sol.*, in HF; sl. in hot, insol. in cold, HCl &  $H_2SO_4$ .

**Acid Nitric.** — Pure. — "C. P." (1)

(Hydrogen Nitrate; Aqua Fortis). — 68% abs. acid. —  $HNO_3$  + aq. — *Etymol.*: Fr. Lat. "nitrogenium," niter maker, the name given by Chaptal to the gas. — *Transp.*; colorl.; fumm.; suffoc., caustic, corros. liq.; str'ly acid; volat. with heat. — *Misc.*, all prop. W. — *Decomp.* A. w. violence. — *Sp. Gr.* 1.403 at  $25^{\circ}C$ . — *Boil.*  $120.5^{\circ}C$ . — *Uses:* In pharm. & chem. — *Extern.*, as an eschar. — *Antid.*, chalk or magnesia & water, sodium, or potassium carbonate, wall plaster, mucilaginous and alk. drinks, ice, &c. — *Caut.* Keep in dark amber, glass-stoppered bottle!

do. — *Sp. Gr.* 1.42 =  $43.5^{\circ}Bé$ . (1)

do. — *Sp. Gr.* 1.32 =  $36.5^{\circ}Bé$ . — Crude (1)

do. — *Sp. Gr.* 1.153 =  $19.25^{\circ}Bé$ . (1)

do. — Diluted. — *U. S. P.* — *Sp. Gr.* 1.054 at  $25^{\circ}C$ . =  $7.50^{\circ}Bé$ . (1)

10% abs. acid. — *Transp.*, colorl. liq.; str'ly acid. — *Misc.*, all prop. W. — *Antiper.*; *Antipyr.*; *Alter.* — *Uses:* *Intern.*, interm. fever, dysent., bronch., syph., diab., whoop-cough, & febrile dis. — *Extern.*, in irritant foot-baths, and as applic. to chilblains. — *Dose* 5–30  $\mathfrak{m}$  (0.3–2 Cc.) dil. w. W.

**Acid Nitric Merck.** — Reagent. — *Sp. Gr.* 1.40 (2)

$HNO_3$ . — Clear, colorl. liq. — *Sp. Gr.* 1.40–1.42. — Abt. 68% by wt.  $HNO_3$ . — *Tests:* As under Acid Nitric, Reagent, *Sp. Gr.* 1.20, but using 4 Cc. of 1.40 acid instead of 10 Cc. of 1.20 acid.

*Note.* — For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

do. Merck. — Reagent. — *Sp. Gr.* 1.30 (2)

Clear, colorl. liq.; abt. 47%  $HNO_3$ . — *Tests:* As of following, but take 7.5 Cc. 1.30 acid instead of 10 Cc. 1.20 acid.

*Note.* — For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

do. Merck. — Reagent. — *Sp. Gr.* 1.20 (2)

$HNO_3$ . — Clear, colorl. liq.; abt. 33%  $HNO_3$ . — *Tests:* (Res.) evap. 10 Cc. — none wghble. — ( $H_2SO_4$ ) 10 Cc. + 90 Cc.  $H_2O$  + *solut.*  $HgCl_2$  — no ppt. ( $BaSO_4$ ) within 12 hrs. — ( $HCl$ ;  $HBr$ ;  $HI$ ) 10 Cc. + 90 Cc.  $H_2O$  + *solut.*  $AgNO_3$  — no turb. — (*Heavy Met.*; *Earths*) 20 Cc. + 80 Cc.  $H_2O$  +  $NH_4OH$  to weak alkalinity + few drops  $(NH_4)_2HS$  +  $(NH_4)_2C_2O_4$  — no dark color or turb. — ( $IO_3$ ;  $I$ ) 5 Cc. + 10 Cc.  $H_2O$  + sm. piece metal. Zn; shake w. sm. quant.  $CHCl_3$  —  $CHCl_3$  not colored violet. — *Uses:* Oxidizing sulphur & its compounds; determ. Cl, Br, I, &c.

*Note.* — For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Acid Nitric Merck.**—Reagent.—Sp. Gr. 1.153 (2 Clear, colorl. liq.; abt. 25%  $\text{HNO}_3$ .—*Tests:* As of acid of sp. gr. 1.20, but take 13 Ce. 1.153 acid instead of 10 Ce. 1.20 acid.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.**—Reagent.—Crude (2

Clear, colorl. or sl. yellowish liq.; at least 61%  $\text{HNO}_3$ .—Sp. Gr. 1.38–1.40.—*Tests:* (Res.) evap. 5 Ce.—none wghble.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Nitric Fuming Merck.**—Sp. Gr. 1.52 (1

(Nitrosnitric Acid).—Yellow to reddish-yellow, str'ly fum. & corros. liq.—*Sol.* W.—Eschar.—*Uses:* Chiefly techn.—*Antid.*, carbonates in water in all cases not hopeless; apply oil to burns caused by acid.—*Caut.* Handle w. care!

**Acid Nitric Fuming Merck.**—Reagent (2

Yellow, or reddish-yellow, clear liq.; at least 86%  $\text{HNO}_3$ .—Sp. Gr. 1.486–1.500.—*Tests:* As of acid nitric sp. gr. 1.20, but taking 5 Ce. fuming acid instead of 10 Ce. 1.20 acid.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Nitrobenzoic (Meta-) Merck** (30

Nitro-derivative of benzoic acid.— $\text{C}_7\text{H}_5\text{NO}_4$ , or,  $\text{C}_6\text{H}_4(\text{NO}_2)\text{COOH}$  [3:1].—Yellowish-wh. cryst.—*Sol.* A., E.—*Melt.*, when dry,  $141^\circ\text{C}$ .

**Acid Nitrobenzoic (Ortho-) Merck** (40

Nitro-derivative of benzoic acid.— $\text{C}_7\text{H}_5\text{NO}_4$ , or,  $\text{C}_6\text{H}_4(\text{NO}_2)\text{COOH}$  [2:1].—Yellowish-wh. cryst.—*Sol.* A., E.—*Melt.*  $147^\circ\text{C}$ .

**Acid Nitrobenzoic (Para-) Merck** (45

(Nitrodraeylic Acid).—Nitro-deriv. of benzoic acid.— $\text{C}_7\text{H}_5\text{NO}_4$ , or,  $\text{C}_6\text{H}_4(\text{NO}_2)\text{COOH}$  [4:1].—Yellowish-wh. cryst.—*Sol.* A., E.—*Melt.*  $238^\circ\text{C}$ .

**Acid Nitrodraeylic.**—see **Acid Nitrobenzoic, Para-**

**Acid Nitrohydrochloric.**—U. S. P. (1

(Aqua Regia; Nitromuriatic, Chloronitrous, or Chlorazotic, Acid).—Prep. fr. 18 pts. pure nitric & 82 pts. pure hydrochloric acids.—Fum., yellow, corros., suffoc., volat. liq.; str'ly acid; diss. gold leaf.—*Misc.*, all prop. W.—*Uses:* See Acid Nitrohydrochl. Dil.—*Antid.*, same as other mineral acids.—*Caut.* Keep cool in amber bot.!

**do.**—Diluted.—U. S. P. (1

Abt.  $1/8$  the strength of the preceding.—Colorl. or pale straw-colored liq.; faint chlorine odor;

str'ly acid.—*Misc.*, all prop. W.—Antipyr.; Alter.; Digest.—*Uses:* Jaund., dyspep., biliary calculi, chronic rheumat., & fevers.—*Dose* 5–20  $\text{m}$  (0.3–1.3 Ce.), dil. w. water.—*Appl.*, dil. to sourness of vinegar, as sponge-, foot-, or general bath, daily or 2–3 t. p. week.—*Antid.*, same as other mineral acids.—*Caut.* Keep in amber bot.!

**Acid Nitromuriatic.**—see **Acid Nitrohydrochloric**

**Acid Nitro-opianic Merck** (240

Nitro-deriv. fr. opianic acid.— $\text{C}_{10}\text{H}_9\text{NO}_7$ .—Yellow cryst.—*Melt.*  $166^\circ\text{C}$ .—*Sol.*, sl. in W. & A.

**Acid Nitrophenisic.**—see **Acid Picric**

**Acid Nitrosalicylic (Meta-) Merck.**—Asymmetric (150

(Asymmetric Metanitrohydroxybenzoic Acid).—Nitro-deriv. of salicylic acid.— $\text{C}_7\text{H}_5\text{NO}_5$ , or,  $\text{C}_6\text{H}_3\text{COOH.OH.NO}_2$  [1:2:5].—Yellowish cryst.—*Sol.* A., hot W.—*Melt.*  $235^\circ\text{C}$ .

**Acid Nitrosalicylic, Vicinal.**—see **Acid Anilotic**

**Acid Nitrosnitric.**—see **Acid Nitric Fuming**

**Acid Nitroxanthic.**—see **Acid Picric**

**Acid Nonoic, Normal.** } —see **Acid Pelargonic**  
**Acid Nonylic.** }

**Acid Noropiandimethylester.**—see **Acid Opianic**

**Acid Nucleinic Merck.**—Fr. Yeast (50

$\text{C}_{40}\text{H}_{54}\text{N}_{14}\text{O}_{27}\text{P}_4$ .—Wh. or grayish-wh. powd. *Sol.*, in alkalis.—Tonic; Nervine; Solvent for uric acid.—*Dose*  $3/4$  grain (0.05 Gm.) 4–10 t. p. d.

**do. Merck.**—Fr. Animal Cell Nuclei (50

**Acid Nucleotolphosphoric.**—see **Solurol**

**Acid Octoic.** } —see **Acid Caprylic**  
**Acid Octylic.** }

**Acid Oenanthic Merck** (90

(Normal Heptoic, Heptylic, or Oenanthylic, Acid).—Fr. oenanthol by oxid'n w. warm solut. potass. dichromate & sulphuric acid.— $\text{C}_7\text{H}_{14}\text{O}_2$ , or,  $\text{CH}_3(\text{CH}_2)_5\text{COOH}$ .—Clear, oily liq. at ord. temp.; unpleas. odor.—Sp. Gr. 0.931 at  $0^\circ\text{C}$ .—*Sol.* A., E.—*Melt.*  $10.5^\circ\text{C}$ .—*Boil.*  $223^\circ\text{C}$ .

**Acid Oenanthylic.**—see **Acid Oenanthic**

**Acid Oleic Merck.**—Highest Purity, Medicinal. —Free fr. Linolic Acid (16

(Oleic Acid).—Fr. pure barium oleate.— $\text{C}_{18}\text{H}_{34}\text{O}_2$ , or,  $\text{C}_8\text{H}_{17}\text{CH}(\text{CH}_2)_7\text{COOH}$ .—Above  $14^\circ\text{C}$ , a clear, colorl., oily liq.; when cold, wh., gran. mass.—*Sol.* A., C., B., fixed & volat. oils.—Sp. Gr. abt. 0.898 at  $15^\circ\text{C}$ .—*Uses:* Instead of olive oil in biliary colic.—*Doses:* 15  $\text{m}$  (1 Ce.) in gelat. caps. morn. and eve; as prophyl. in biliary colic, 8–15  $\text{m}$  (0.5–1 Ce.) for 10 consecutive days during a month

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Acid Oleic Merck.**—Pure

15

Fr. commercial oleic acid by cooling to abt. 5° C.  $C_{18}H_{34}O_2$ . Yellowish, oily liq.—Sp. Gr. abt. 0.895 at 25° C.—*Sol.* A, E, C, B, oils, carbon disulph., &c.—*Uses*.—Chiefly for prep. oleates.—*Incomp.*, nitrous or nitric acids.—*Caut.* Darkens & decomp. on expos. to air. Keep cool, well corked.

**do. Merck.**—Commercial, light-colored

1

*Uses*.—Techn., chiefly in polishing compounds, and in manuf. of soaps.

**Acid Oleosulphonic.**—see **Acid Sulpholeic**

**Acid Opianic Merck.**—Highest Purity, **cryst.**

100

(Noropiumdimethylester Acid).—Fr. narcotine by oxid'n.— $C_{18}H_{27}O_5$ , or,  $C_{18}H_{25}(CH_2O)_2(CHO)$ .— $COOH$ . Wh. cryst.—*Sol.* A, E., hot W.—*Melt.* 145° C.

**Acid Orthoaminobenzoylfarmic.**—see **Isatin**

**Acid Orthoboric.**—see **Acid Boric**

**Acid Orthocresotinic.**—see **Acid Cresotic. Ortho-**

**Acid Orthocresylic.**—see **Cresol, Ortho-**

**Acid Orthohomosalicylic.**—see **Acid Cresotic, Ortho-**

**Acid Orthokresotic.**

**Acid Ortho-oxybenzoic.**—see **Acid Salicylic**

**Acid Ortho-oxydiphenylcarbonic.**—see **Acid Phenylsalicylic**

**Acid Ortho-oxytetatoluic.**—see **Acid Cresotic, Ortho-**

**Acid Ortho-oxyethylbenzoic, Anhydride.**—see **Phthalide**

**Acid Ortho-oxyquinolinemetasulphonic.**—see **Diaphtol**

**Acid Orthophenolsulphonic.**—see **Aseptol**

**Acid Orthophthalic.**—see **Acid Phthalic**

**Acid Orthopyridinecarbonic.**—see **Acid Picolinic**

**Acid Orthosulphocarbolic.**—see **Aseptol**

**(Acid) Osmic Anhydride Merck** (1425

(Osmium Tetroxide; Perosmic Anhydride; so-called "Perosmic" Acid).—Fr. finely powd. osmium by heating in oxygen.— $OsO_4$ .—Yellowish cryst.; v. pungent, disagr. odor.—*Sol.* W., A, E.—*Melt.* 40° C.—*Boil.*, abt. 100° C.—*Antineur.*; *Discut.*; *Anti-epilep.*—*Uses*: *Intern.*, musc. rheumat., neural.—*Extern.*, remove tumors.—*Dose*  $\frac{1}{60}$  grain (0.001 Gm.) several t. p. d.—*Inj.*  $\frac{1}{20}$ — $\frac{1}{6}$  grain (0.003–0.01 Gm.) as 1% solut. in W. 60, G. 40.—*Max. D.*  $\frac{1}{6}$  grain (0.01 Gm.) single;  $\frac{1}{3}$  grain (0.02 Gm.) daily.—*Micros.*, reagent for fatty subst'c. and nerve subst'c.—*Techn.*, in photog.—*Antid.*, hy-

drogen sulphide gas.—*Incomp.*, organic substances, phosphorus, ferrous sulphate, iodides, &c.—*Caut.* Vapor exceed irrit. to the air-passages. Handle carefully!

**Acid Oxalic Merck.**—Highest Purity, Medicinal, **cryst. & powd.**

1

Fr. cellulose (saw-dust).— $H_2C_2O_4 + 2H_2O$ , or,  $(COOH)_2 + 2H_2O$ . Transp., colorl. cryst.; v. acid taste.—*Sol.* W., A.; sl. in E.—*Melt.*, abt. 100° C.—*Emmen.*; *Expector.*; *Sed.*—*Uses*: *Intern.*, funct. minor., ac. cystitis, bronchitis, and asthma.—*Dose*  $\frac{1}{2}$ –1 grain (0.03–0.06 Gm.) every 4 hrs., in sweet W. as emmen.;  $2\frac{1}{2}$  grains (0.15 Gm.) ev. hour w. infus. tea in asthma and bronchitis.—*Max. D.* 8 grains (0.5 Gm.) single, and 24 grains (1.5 Gm.) p.d.—*Antid.*, calcium saccharate, chalk, lime-water, magnesia.—*Incomp.*, iron, & salts; calcium salts, alkalies, arsenates.—*Caut.* Poisonous!

**do. Merck.**—Highest Purity, anhydrous

4

Fr. cryst. oxalic acid.— $H_2C_2O_4$ , or,  $(COOH)_2$ .—*Subl.*, at 187° C.

**do. Merck.**—Highest Purity, Sublimed

15

$H_2C_2O_4$ , or,  $(COOH)_2$ .—*Melt.* 187° C.

**do. Merck.**—Commercial, **cryst. & powder**

1

*Uses*: Calico printing, dyeing, tanning, bleaching straw (hats), removing rust and ink stains, manuf. of ink, dehydrating agent in condensations (Anschütz), and in chem. analysis.

**Acid Oxalic Merck.**—Reagent

1

$H_2C_2O_4 + 2H_2O$ .—Colorl., odorl. cryst., free fr. effloresc.—99.8–100% pure.—*Sol.* 10 cold, 3 boil. W.; 2.5 A.; abt. 100 E.—*Melt.* 98° C. in its water of cryst.; when anhydrous, melts at 187° C.—Rendered anhydr. at 70° C.—*Subl.*, at abt. 100° C.—*Tests*: (*Res.*) dry 3 Gm. & ignite in platin. crucib.—none wghble.—( $H_2SO_4$ ) 5 Gm. + 100 Ce.  $H_2O$  + 1 Ce.  $HCl$  (sp. gr. 1.124) + solut.  $BaCl_2$ —no ppt. within 12 hrs.—( $Cl$ ) 5 Gm. + 50 Ce.  $H_2O$  + 15 Ce.  $HNO_3$  (sp. gr. 1.153) + few drops solut.  $AgNO_3$ —at most only sl. opalesc. turb.—(*Heavy Met.*) aqu. 1:10 solut. perf. clear; 30 Ce. solut. + aqu.  $H_2S$ —no react.; add now  $NH_4OH$  till alkal.—no green or brown color & no ppt.—(*NH<sub>4</sub>Compounds*) a: 5 Gm. + 30 Ce. solut.  $NaOH$ ; boil.—no  $NH_3$  evolved (test w. moist litmus paper); b: 2.5 Gm. + 5 Gm.  $KOH$  + 30 Ce.  $H_2O$  + 15 drops Nessler's reag.—only sl. yellow color at most, but no brownish-red.—( $HNO_3$ ) overlay 10 Ce. 1:10 solut. on solut. diphenylamine in conc.  $H_2SO_4$ —no blue color zone.—*Uses*: Prep. volumetric solutions; separation of alkalies, magnesium & the rarer earths (Ce, Zr, Th, &c.); detect. & determ. Ca.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Acid Oxalic Merck.**—Reagent.—Sublimed (20  
 $\text{H}_2\text{C}_2\text{O}_4$ .—Wh., cryst., exceed. hygrosc. powd.;  
 at least 99.5% anhydr. oxal. acid.—*Melt.* 187°  
 C.—*Tests.* (Res.) ignite 10 Gm.—none wghble.—  
 Other tests as preceding.—*Uses:* Chiefly as  
 starting material for prep. volumetric soluts.

*Note.*—For complete tests see "Chemical  
 Reagents: Their Purity & Tests," published by  
 D. Van Nostrand Co., New York. This reagent  
 conforms to the standard therein given.

**Acid Oxalmolybdic Merck.**—Pure, cryst. (12  
 (Oxalmolybdenic Acid).— $2(\text{C}_2\text{O}_4\text{HMoO}_3) \cdot 2\text{H}_2\text{O}$ .  
 —Colorl. cryst.—*Sol.* W.—*Uses:* For sympa-  
 thetic ink.

**Acid Oxamic Merck.**—Pure (70  
 (Oxaminic Acid).—Fr. acid ammonium oxalate,  
 by heat.— $\text{C}_2\text{H}_3\text{NO}_3$ , or,  $\text{CO}(\text{NH}_2)\text{COOH}$ .—  
 Colorl. cryst.—*Sol.* W.

*Acid Oxyacetic.*—see **Acid Glycolic**

**Acid Oxybenzoic (Meta-) Merck** (90  
 Fr. meta-amidobenzoic acid, by nitrous acid.—  
 $\text{C}_7\text{H}_5\text{O}_3$ , or,  $\text{C}_6\text{H}_4(\text{OH})\text{COOH}$ .—Colorl. cryst.—  
*Sol.* A.—*Melt.* 200° C.

**Acid Oxybenzoic (Para-) Merck** (6  
 Fr. para-amidobenzoic acid, by nitrous acid.—  
 $\text{C}_7\text{H}_5\text{O}_3 + \text{H}_2\text{O}$ , or,  $\text{C}_6\text{H}_4(\text{OH})\text{COOH} + \text{H}_2\text{O}$ .—  
 Colorl. cryst.—*Sol.* A., E.—*Melt.* 210° C.

**Acid Oxybutyric (Beta-) Merck** (240  
 Us'y fr. acetoacetic acid by reduct. w. sod.  
 amalgam.— $\text{C}_4\text{H}_7\text{O}_3$ , or,  $\text{CH}_3\text{CH}(\text{OH})\text{CH}_2\text{CO}$ -  
 OH.—Viscid, yellow mass.—*Sol.* W.

*Acid Oxyethylsulphonic.*—see **Acid Isethionic**

**Acid Oxyisobutyric Merck** (120  
 (Alphaoxyisobutyric, Acetonic, Dimethyloxalic,  
 Dimethoxyacetic, or Butyllactic, Acid).—Fr.  
 acetone, by hydrocyanic w. dil. HCl.— $\text{C}_4\text{H}_8\text{O}_3$ ,  
 or,  $(\text{CH}_3)_2\text{C}(\text{OH})\text{COOH}$ .—Colorl. cryst.—*Sol.*  
 W., A., E.—*Subl.*, at 50° C.; volat. w. steam.—  
*Melt.* 79° C.—*Boil.* 212° C.

*Acid Oxymalonic.*—see **Acid Tartronic**

**Acid Oxynaphtic (Alpha-) Merck.**—Pure (10  
 (Alphanaphtholcarboxylic, or Alphacarbonaph-  
 tholic, Acid).—Fr. sodium-alphanaphthol, by  
 $\text{CO}_2$  w. heat.— $\text{C}_{11}\text{H}_8\text{O}_3$ , or,  $\text{C}_{10}\text{H}_6\text{OH}\cdot\text{COOH}$ .  
 —Wh. cryst.; odorl.; sternutatory.—*Sol.* A.,  
 C., B., oils, aqu. solut's of alkalies & alkali  
 carbonates; sl. in W.—*Melt.* 186° C.—Anti-  
 parasitic; sl. in W.—*Uses:* Intern.,  
 disinfect. intest. tract (reported 5 times as efficient  
 as salicylic acid).—*Extern.*, in parasitic skin  
 dis. (in 10% oint.), coryza, &c.—*Dose*  $1\frac{1}{2}$ –3  
 grains (0.1–0.2 Gm.).

do. Merck.—Commercial (3

*Uses:* Antiseptic.

**Acid Oxynaphtic (Beta-) Merck** (4  
 (Betanaphtholcarboxylic, or Betacarbonaph-  
 tholic, Acid).—Fr. sod. betanaphthol, by carbon

dioxide w. heat.— $\text{C}_{11}\text{H}_8\text{O}_3$ , or,  $\text{C}_{10}\text{H}_6\text{OH}\cdot\text{COOH}$ .  
 —Yellow cryst.—*Sol.* A., E., C.—*Melt.* 156° C.  
 —Antisep.—*Uses:* Surg. antisept.

*Acid Oxynaphthylortho-oxytoluyllic.*—see **Epicarin**

*Acid Oxyphenic.*—see **Pyrocatechin**

*Acid Oxysuccinic.*—see **Acid Malic**

*Acid Oxytricarballic.*—see **Acid Citric**

**Acid Palmitic Merck.**—Pure (12  
 (Palmitic, or Cetyllic, Acid).—Fr. spermaceti  
 by saponif.— $\text{C}_{16}\text{H}_{32}\text{O}_2$ , or,  $\text{C}_{15}\text{H}_{31}\text{COOH}$ .—Wh.  
 cryst.—*Sol.* A., E.—*Melt.* 60° C.—*Boil.* 268°  
 C. at 100 Mm.

do. Merck.—Crude (1

Yellow, amorph. powder or wax-like mass.

*Acid Para-aminobenzene(or -zol)sulphonic.* } —see **Acid Sulph-**  
*Acid Para-anilinesulphonic.* } **anilic**

**Acid Parabanic Merck.**—Cryst. (100  
 (Oxalylurea; Ethanedi oxyureid).—From uric  
 acid, by mod. strong nitric acid.— $\text{C}_3\text{H}_2\text{N}_2\text{O}_3$ , or,  
 $\text{CONH}\cdot\text{CO}\cdot\text{CONH}$ .—Colorl. cryst.—*Sol.* W., A.

*Acid Paracresotinic.*—see **Acid Cresotic, Para-**

*Acid Paracresylic.*—see **Cresol, Para-**

*Acid Parahomosalicylic.* } —see **Acid Cresotic,**  
*Acid Parakresotic.* } **Para-**

*Acid Paramandelic.*—see **Acid Amygdalic**

*Acid Paramethoxy(or -oxyl)benzoic.*—see **Acid**  
**Anisic**

*Acid Paraoxymetatoluic.*—see **Acid Cresotic,**  
**Para-**

*Acid Paraoxyphenylalpha-amidopropionic.*—see  
**Tyrosine**

*Acid Paraphthalic.*—see **Acid Terephthalic**

*Acid Pararosolic.*—see **Acid Rosolic**

**Acid Parasorbic Merck** (240  
 Fr. berries of Sorbus Aucuparia.— $\text{C}_6\text{H}_{10}\text{O}_3$ .—  
 Yellow liq.—*Sp. Gr.* 1.063 at 21° C.—*Sol.* A., E.

*Acid Paratartrac.*—see **Acid Racemic**

*Acid Paratoluyllic.*—see **Acid Toluic, Para-**

*Acid Parillinic.*—see **Smilacin**

**Acid Pelargonic Merck** (140  
 (Normal Ennoic, Nonylic, or Normal Nonoic,  
 Acid).—Fr. oil of Ruta graveolens, L. (Rue).—  
 $\text{C}_{17}\text{H}_{34}\text{O}_2$ .—Oily, yellowish liq. at normal  
 temp.—*Sp. Gr.* 0.9103 at 15° C.—*Sol.* A., E.,  
 C.—*Melt.* 12.5° C.—*Boil.* 254° C.

*Acid Pentahydroxycaproic.*—see **Acid Gluconic**

*Acid Pentoic, Primary.*—see **Acid Valeric, Iso-**

*Acid Pentylformic.*—see **Acid Caproic, Normal**

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potas-  
 sium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sul-  
 phate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine;  
 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

**Acid Perchloric Merck.**—Pure (8  
(Fraude's Reagent).—Fr. potass. perchlorate  
by sulphuric acid.  $\text{HClO}_4 + \text{aq.}$  Aqu. solut.  
of perchloric acid.—Abt. 20% acid.—Sp. Gr.  
1.12=16° B $\acute{e}$ .—Misc. W. *Boul.* 140-200° C.;  
non-distillable. Caustic. *Uses*: Powerful ox-  
idizer; also as test for alkaloids, w. which it  
affords color reactions on boiling, e.g., aspi-  
dospermine. —*Caut.* Poison! Deaggrates w.  
readily oxidizable substances.

**Acid Perchloric Merck.**—Reagent (12  
 $\text{HClO}_4$ —Colorl. liq.; abt. 20%  $\text{HClO}_4$ .—Sp. Gr.  
1.12.—*Tests*: (*Res.* evap. & ignite 10 Gm.—none  
wghble.—( $\text{H}_2\text{SO}_4$ ) 5 Ce. + 100 Ce.  $\text{H}_2\text{O}$  + 5 Ce.  
 $\text{HCl}$  (sp. gr. 1.124) + solut.  $\text{BaCl}_2$ —no ppt. within  
12 hrs.—( $\text{HCl}$ ) 5 Ce. + 25 Ce.  $\text{H}_2\text{O}$  + 3 Ce.  $\text{HNO}_3$   
(sp. gr. 1.153) + solut.  $\text{AgNO}_3$ —at most sl.  
opalesc. turb.—(*Bar*) 10 Ce. + 50 Ce.  $\text{H}_2\text{O}$  + dil.  
 $\text{H}_2\text{SO}_4$ —no turb. within 5 min.—(*Heavy Met.*)  
10 Ce. + 40 Ce.  $\text{H}_2\text{O}$  + aqu.  $\text{H}_2\text{S}$ —no react.; add  
10 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96) + few drops ( $\text{NH}_4$ )-  
 $\text{HS}$ —no green or brown color, & no ppt.—*Uses*:  
Detect. & determ. K; alkaloidal reagent; de-  
stroying organic matter in forensic analysis.

*Note*.—For complete tests see "Chemical  
Reagents: Their Purity & Tests," published by  
D. Van Nostrand Co., New York. This reagent  
conforms to the standard therein given.

**Acid Periodic Merck** (70  
Fr. iodine, by concentrated perchloric acid.—  
 $\text{HIO}_4 + 2\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W., A.—*Melt.*  
130–133° C.—*Uses*: Powerful oxidizer.

**Acid Perosmic.**—see (Acid) Osmic Anhydride

**Acid Phenic.**—see Acid Carbolic; Phenol

**Acid Phenoldisulphonic**

Fr. phenol, by sulphuric acid w. sulphurous  
anhydride.— $\text{C}_6\text{H}_6\text{S}_2\text{O}_7$ , or,  $\text{C}_6\text{H}_5\text{OH}(\text{SO}_3\text{H})_2$ .—  
Deliq., colorl. need.—*Sol.* W., A.

**Acid Phenolsulphonic.**—see Aseptol

**Acid Phenolsulphonic Merck.**—Commercial (2  
(Sulphocarbolic Acid).—Yellowish liq., becom-  
ing brown on exposure to air.—Mixt. of ortho-  
and paraphenolsulphonic acids.—*Sol.* W., A.

**Acid Phenolsulphuricinic.**—see Phenol Sulpho-  
ricinate

**Acid Phenylacetic Merck** (16  
(Alphatoluic [or -ylic] Acid).—Fr. benzyl cyan-  
ide w. alkali.— $\text{C}_6\text{H}_5\text{O}_2$ , or,  $\text{C}_6\text{H}_5\text{CH}_2\text{COOH}$ .—  
Shin., wh. plates.—*Sol.* A., E., hot W.—  
*Melt.* 76° C.—*Boil.* 262–265° C.—Antisept.  
Antituberc.—*Uses*: Intern., in typh. fever &  
pulmon. phth.—*Dose* 10–20  $\text{m}$  of 1:6 alc. sol.  
solut. 3 t. p. d., with W.

**Acid Phenylboric.**—see Acid Borophenylic

**Acid Phenylformic.**—see Acid Benzoic

**Acid Phenylglycolic.**—see Acid Amygdalic

**Acid Phenylhydracrylic.**—see Acid Tropic

**Acid Phenylhydrazinlevulinic.**—see Anti-  
thermin

**Acid Phenylhydroxyacetic.**—see Acid Amyg-  
dalic

**Acid Phenylic.**—see Acid Carbolic; Phenol

**Acid Phenylortho-oxybenzoic.**—see Acid Phenyl-  
salicylic

**Acid Phenylpropionic** (120  
 $\text{C}_9\text{H}_8\text{O}_2$ , or,  $\text{C}_6\text{H}_5\text{CH}_2\text{COOH}$ .—Colorl. needl.—  
*Sol.*, eas. A., E., & in solut.  $\text{Na}_2\text{CO}_3$ ; insol. cold  
W.—*Melt.* 136–137° C.—Used in form of so-  
dium phenylpropionate (which see).—*Caut.*  
Keep dark.

**Acid Phenylpropionic.**—see Acid Hydrocin-  
namic

**Acid Phenylsalicylic Merck** (800  
(Phenylortho-oxybenzoic, or Ortho-oxydiphen-  
ylcarbonic, Acid).— $\text{C}_{13}\text{H}_{10}\text{O}_3$ , or,  $\text{C}_6\text{H}_5\text{C}_6\text{H}_4\text{O}_2$ .  
 $\text{OILCOOH}$ .—Wh. powd.—*Sol.* A., E., G.; v. sl.  
W.—*Melt.* 113° C.—Antisept.—*Uses*: Extern.,  
wounds, inst. of iodoform.

**Acid Phloretic.**—see Phloretin

**Acid Phocenic.**—see Acid Valeric, Iso-, from  
Valerian Root

**Acid Phosphoantimonic Merck** (5  
Wh., cryst. powd.

do. Merck.—Solution (3  
Fr. antimony pentachloride, by conc. aqu. solut  
sod. phosphate.—Sp. Gr. 1.2=24° B $\acute{e}$ .—*Uses*:  
Alkaloid reagent.

**Acid Phosphomolybdic Merck.**—Cryst. (20  
 $\text{H}_3\text{PO}_4 \cdot 12\text{MoO}_3 + \text{aq.}$ —Yellowish cryst.—*Sol.* W.,  
E., & A.—*Uses*: In aqu. solut. as alkaloidal reagent.  
(Sonnenschein's Reagent).

**Acid Phosphomolybdic Merck.**—Reagent

$\text{H}_3\text{PO}_4 \cdot 12\text{MoO}_3 + x\text{H}_2\text{O}$ .—Lustr. cryst.—*Sol.*, eas.  
& compl. in W.—*Tests*: (*Solub.*; *Heavy Metals*;  
*Earths*) 1 Gm. compl. solub. in 10 Ce.  $\text{H}_2\text{O}$ ; add  
to solut. 2–3 drops  $\text{NH}_4\text{OH}$ —yellow ppt., solub.  
on add. 5 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96); now add  
( $\text{NH}_4$ ) $\text{HS}$  + ( $\text{NH}_4$ ) $\text{C}_2\text{O}_4$  solut.—no react.—*Uses*:  
Reagent for alkaloids, & salts of potassium,  
ammonium, rubidium, caesium, & thallium.

*Note*.—For complete tests see "Chemical  
Reagents: Their Purity & Tests," published by  
D. Van Nostrand Co., New York. This reagent  
conforms to the standard therein given.

do. Merck.—Reagent.—10% Solution (4

**Acid Phosphoric Merck.**—Cryst. (2  
(Orthophosphoric Acid).—Fr. phosphorus by  
oxid'n.— $\text{H}_3\text{PO}_4$ .—Transp., deliq., colorl. prisms;  
odorl.; v. acid taste.—*Sol.*, all prop. W.—  
*Uses*: Chem., pharm.—*Caut.* Stopper well.

When ordering from your supply house articles which bear the designation Merck (see Preface, p. v)

**Specify MERCK'S** on your orders

because MERCK'S products are the STANDARD and COST NO MORE



**Acid Phosphoric Merck.—Syrupy (1**

$\text{H}_3\text{PO}_4$  + aq.—Colorl., syrupy liq.; odorl.; intens. acid taste; 85% abs. orthophosph. acid.—Sp. Gr. 1.725 at 15° C.; (1.707 at 25° C., U. S. P.) = 60.5° B $\phi$ .—*Sol.*, all prop., W., A.—Above 200° C., changes to pyrophosph. acid.—Astring.; Stim.; Antipyr.; Refrig.—*Uses:* Intern., dyspep., scrofula, caries, plth., night sweats, disturbances in tooth nutrition, etc.—*Techn.*, in chem. & pharm., and for improving color of sugar.—*Dose* 2–6 m (0.12–0.36 Ce.) well diluted w. W.—*Antid.*, alkalies & alkaline earths & their carbonates & bicarbonates.—*Incomp.*, lead acetate, ferric chloride, silver nitrate, solut. iron phosphate or pyrophosphate, & cc.

do. Merck.—Sp. Gr. 1.347.—50% (1

do. Merck.—Diluted.—U. S. P. (1

10%.—Sp. Gr. 1.057 at 25° C. (U. S. P.).—Tonic; Refrig.—*Uses:* Dyspep., scrof., caries, catar. affect., dis. of bones, plth. nightsw &c.—*Dose* 20–60 m (1.3–1 Ce.).

**Acid Phosphoric Merck.—Reagent.—Sp. Gr. 1.7 (2**

$\text{H}_3\text{PO}_4$ .—Clear, colorl., odorl., syrupy liq.; abt. 85% orthophosphoric acid.—*Tests:* (*Volat. Acids*) 30 Ce. + 50 Ce.  $\text{H}_2\text{O}$ ; distil. off 50 Ce.; titrate distillate w. decinorm. KOH (methyl orange indic.)—not more than 0.1 Ce. KOH solut. should be required to change color to yellow.—(*HNO<sub>3</sub>*) 2 Ce. + conc.  $\text{H}_2\text{SO}_4$ ; overlay w. 1 Ce. solut.  $\text{FeSO}_4$ —no color zone.—(*HCl*; *HBr*; *HI*;  $\text{H}_3\text{PO}_3$ ) 2 Ce. + 18 Ce.  $\text{H}_2\text{O}$  + solut.  $\text{AgNO}_3$ —no react., even on warm.—( $\text{H}_2\text{SO}_4$ ) 20 Ce. dil. (1:10) acid + solut.  $\text{BaCl}_2$ —no ppt. ( $\text{BaSO}_4$ ) within 2–3 hrs.—(*Metaphosph. Acid*) drop dil. (1:10) acid into dil. solut. albumin—no turb.—(*Heavy Met.*, *Earths*, &c.) a: 20 Ce. dil. (1:10) acid + aq.  $\text{H}_2\text{S}$ —no react.; b: 20 Ce. dil. (1:10) acid + 10 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96) + solut.  $(\text{NH}_4)_2\text{C}_2\text{O}_4$  (&  $[\text{NH}_4]\text{HS}$ )—no ppt.; c: 5 Ce. + 20 Ce. absol. A.—perf. clear solut.—(*Oxidizable Substcs*) 5 Ce. + 5 Ce. dil.  $\text{H}_2\text{SO}_4$  + 5 drops decinorm.  $\text{KMnO}_4$ ; heat 5 min. at 100° C.—red color should not dissap.—(As) 3 Ce. + 20 Ce.  $\text{H}_2\text{O}$ ; introd. in sm. quant. into Marsh apparat. started w. 20 Gm. As-free gran. Zn + dil. (1:5)  $\text{H}_2\text{SO}_4$ —no deposit in reduct. tube within 2 hrs.—*Uses:* Determining acetic acid, boric acid, &c.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

do. Merck.—Reagent.—Sp. Gr. 1.12 (1

Clear, colorl., odorl. liq.; abt. 20%  $\text{H}_3\text{PO}_4$ .—*Tests:* As of preceding, using 4 Ce. 1.12 acid, however, instead of 1 Ce. 1.7 acid.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Phosphoric Merck.—Reagent.—Sp. Gr. 1.057 (1**

$\text{H}_3\text{PO}_4$ .—Clear, colorl., odorl. liq.—Sp. Gr. abt. 1.057.—Abt. 10%  $\text{H}_3\text{PO}_4$ .—*Tests:* As under Acid Phosphoric, Reagent, Sp. Gr. 1.7, but using 10 Ce. 1.057 acid instead of 1 Ce. 1.7 acid.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**(Acid) Phosphoric Anhydride Merck (2**

(Phosphorus Pentoxide; so-called "Anhydrous Phosphoric Acid"; Phosphoric Oxide).—Fr. phosphorus by compl. combust.— $\text{P}_2\text{O}_5$ .—Bulky, light, wh., deliq. powd.—With W. forms metaphosph. acid & evolves heat.—*Sol.*, all prop., W.—*Uses:* Chem.; drying agent; incandesc. light.

**(Acid) Phosphoric Anhydride Merck.—Reagent (3**

$\text{P}_2\text{O}_5$ .—Wh., amorph., colorl., bulky powd.—*Sol.* W. (forms metaphosphoric acid).—Compl. volat. on heat. in test-tube.—*Tests:* (As) diss. 1 Gm. in sm. portions at a time in 20 Ce.  $\text{H}_2\text{O}$ , & pass  $\text{H}_2\text{S}$  gas into solut., while warming—no yellow color or ppt.—*Uses:* Dehydrating agent in organic synthesis, & drying agent for gases.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Phosphoric (Meta-) Merck.—Small Lumps or Sticks (1**

(Glacial Phosphoric Acid).—Fr.  $\text{H}_3\text{P(O)}_4$  by heat.— $\text{HPO}_3$ .—Transp., h'ly deliq., colorl., glassy mass; str'ly acid react.—*Sol.* W., A.—*Uses:* Detect albumin in urine.

do.—Diluted.—N. F.

10 Gm. glac. phosph. acid & dist. W. to 100 Ce.

**Acid Phosphoric (Meta-) Merck.—Reagent (3**

(Glacial Phosphoric Acid).— $\text{HPO}_3$ .—Colorl., transp., vitr. lumps or sticks; deliquesce. in moist air.—*Sol.*, v. eas. W.—*Melts* to clear liq. on heat.—*Tests:* ( $\text{HNO}_3$ ) diss. 1 Gm. in 2 Ce.  $\text{H}_2\text{O}$ , add conc.  $\text{H}_2\text{SO}_4$ , & overlay w. 1 Ce. solut.  $\text{FeSO}_4$ —no color zone.—( $\text{H}_2\text{SO}_4$ ) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 5 Ce.  $\text{HCl}$  + solut.  $\text{BaCl}_2$ —no immed. turb.—( $\text{HCl}$ ;  $\text{HBr}$ ;  $\text{HI}$ , etc.) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 5 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + solut.  $\text{AgNO}_3$ —no turb.—(*Heavy Metals*; *Earths*, &c.) a: 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + aq.  $\text{H}_2\text{S}$ —no react.; b: 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 5 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96) +  $(\text{NH}_4)_2\text{C}_2\text{O}_4$  (&  $[\text{NH}_4]\text{HS}$ )—no ppt.—(As) 1 Gm. + 1 Ce.  $\text{H}_2\text{O}$  + 5 Ce. solut.  $\text{SnCl}_2$ —no dark color on stand. 1 hr.—(*Oxidizable Substcs*) 1 Gm. + 10 Ce.  $\text{H}_2\text{O}$  + 5 Ce. dil.  $\text{H}_2\text{SO}_4$  (sp. gr. 1.11) + 0.1 Ce. decinorm.  $\text{KMnO}_4$ , & heat 5 minutes at 100° C.—red color should not dissap.—*Uses:* Detect albumin; prepar. dental cements.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Comparative Values** (see Preface, page v): 1= Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Acetonine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

## Acid Phosphorous Merck. — Cryst. (20)

Fr. phosphorus trichloride by  $W. - H_3PO_3$ . — Wh. to yellowish cryst. mass, readily absorb. oxygen & form phosphoric acid. *Sol.*  $W.$  — *Melt.*  $70^\circ C.$  *Uses.* — Reduc. agent. — *Caut.* — Stopper tight.

## do. Merck. Solution. Sp. Gr. 1.12 (6)

## Acid Phosphotungstic Merck. — Cryst. (7)

[Phosphowolframic Acid]  $- H_5PO_4, 12WO_3 + aq.$  — Heavy, greenish cryst. — *Sol.*  $W.$  — *Uses.* — Reag. for alkaloids.

## Acid Phosphotungstic Merck. — Reagent. — Absol. free from $NH_3$ & $N_2O_5$ (10)

$(P_2O_5, 20WO_3, 11H_2O) + 16H_2O$ . — Sm., wh., or sl. yellowish-green cryst. *Sol.*, eas.  $W.$  — *Tests.* ( $HNO_3$ ) diss. 1 Gm. in 10 Cc.  $H_2O$  w. a gramule  $NaCl$ , add 1 drop 1.1000 indigo solut. & 10 Cc. conc.  $H_2SO_4$ ; blue color must not disappear within 10 minutes. — ( $NH_4$  Salts) heat solut. 1 Gm. in 10 Cc.  $H_2O$  w. 5 Cc. solut.  $NaOH$  (sp. gr. 1.3) — no  $NH_3$  evolved (test w. moist litmus paper). — *Uses.* — Precip. alkaloids, organic bases, albumens, & peptones.

*Note.* — For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## Acid Phosphowolframic. — see Acid Phosphotungstic

## Acid Phthalic Merck. — Pure, cryst. (6)

(Orthophthalic, or Naphthalic Acid). — Fr. naphthalene tetrachloride by oxid'n. —  $C_8H_6O_4$ , or,  $C_6H_4(COOH)_2$  [1:2]. — Colorl. cryst. — *Sol.*, hot  $W.$ , A., E. — *Melt.*  $213^\circ$ . — *Uses.* — Chem.

## (Acid) Phthalic Anhydride Merck. — Sublimed (3)

(So-called "Anhydrous Phthalic Acid"). — Fr. orthophthalic acid, by distil. —  $C_8H_4O_3$ , or  $C_6H_4(CO)_2O$ . — Wh. need. — *Sol.*, hot  $W.$ , A., E. — *Melt.*  $125^\circ C.$  — *Boil.*  $281^\circ C.$

## Acid Phthalic (Iso-) Merck (110)

(Metaphthalic Acid). — Fr. iso- & meta-xylenes, by oxid'n. —  $C_8H_6O_4$ , or,  $C_6H_4(COOH)_2$  [1:3]. — Wh. cryst. — *Sol.* A. — *Melt.*, above  $300^\circ C.$

## Acid Picolinic Merck (1000)

(Alphapyridinecarbonic, or Orthopyridinecarbonic, Acid). — Derivative of alphapicoline. —  $C_6H_5NO_2$ , or,  $C_6H_4N.COOH$  [1:2]. — Wh. cryst. — *Subl.*, without melt. — *Sol.*, hot  $W.$

## Acid Picramic Merck. — Cryst. (30)

(Picraminic Acid; Dinitroamidophenol). —  $C_6H_5N_3O_8$ , or,  $C_6H_2.OH.NH_2.NO_2.NO_2$  [1:2:4:6]. — Dark red cryst. — *Sol.* A. — *Melt.*  $165^\circ C.$

## Acid Picric Merck (1)

(Trinitrophenol; Pieronitric, Pierinic, Carbazotic, Nitroxanthic, or Nitrophenic, Acid). — Fr. phenol by nitration. —  $C_6H_3N_3O_7$ , or,  $C_6H_2.OH.NO_2.NO_2$  [1:2:4:6]. — Yellow, lustr. cryst.; odorl.; intens. bitter. — *Sol.* 10 A., 6.5 E.,

C., B.; 170 W. — *Melt.*  $122.5^\circ C.$  — Antisept.; Oxidiz. — *Uses.* — *Intern.*, in malaria, trichiniasis, &c. — *Extern.*, 2 to 6% hydro-alcoh. solut. in hemorrh., erysip., lymphang., burn, ecz., & eryth.; 1.5% solut. as inject. in gonorrh. (500 Cc., 2-5 1000 solut. 3 t. p. d.); 0.1% solut. in fissured nipples, &c. — *Techn.*, dyeing, explosives, & in leather industry. — *Chem.*, reagent for albumen & peptone. The solut. 1 part of picric acid in 100 pts. water (U. S. P.) serves for detection of albumen, glucose, & alkaloids. — *Dose*  $\frac{1}{2}$ -2 grains (0.03-0.12 Gm.), in alcohol. solut. — *Mar.* D. 5 grains (0.3 Gm.). — *Antid.*, albumen; hypodermoclysis; transfusion of alkali. sod. chloride solut.; sod. sulphate. — *Incomp.*, all oxidizable substances; gelatin, albumin, alkaloids. — *Caut.* Dangerously explosive with sulphur, phosphorus, &c. Poisonous! Do not apply in substance or in oint., as then toxic effects are caused.

## Acid Picric Merck. — Reagent (18)

(Pieronitric Acid; Trinitrophenol). —  $C_6H_2(OH)(NO_2)_3$ . — Pale-yellow, glist. cryst. — *Sol.*, abt. 90 cold, & abt. 30 boil.,  $W.$ ; eas. in A., B., E. — *Melt.*  $122.5^\circ C.$  — *Tests.* (*Resins*; *Subst.* *Insol.* in  $H_2O$ ) 1 Gm. compl. solub. in & affords clear solut. w. 100 Cc.  $H_2O$ . Add to solut. 1-2 drops dil.  $H_2SO_4$  — no ppt. within 12 hrs.; filter — no resin on filter. — (*Subst.* *Insol.* in B. [*Picates of K, Na, & NH\_4*]) 1 Gm. compl. solub. in & affords clear solut. w. 20 Cc. B. — ( $H_2C_2O_4$ ) 1 Gm. + 100 Cc.  $H_2O$  + solut.  $CaCl_2$  — no ppt. of  $CaC_2O_4$  within 2 hrs. — ( $H_2SO_4$ , free & combined) 2 Gm. + 10 Cc.  $HNO_3$  (sp. gr. 1.4), evap. to dryness on  $W.$ -bath, diss. res. in 100 Cc. boil.  $H_2O$  w. 5 Cc.  $HNO_3$  (sp. gr. 1.153), cool, filter, & add solut.  $Ba(NO_3)_2$  to filtrate — no immed. turb. — (*Ash*) cautiously incin. 1 Gm. in open plat. dish — res. should not weigh more than 0.001 Gm. — *Uses.* — Precip. alkaloids, albumen, gelatin; testing for glucose, creatinin, guanin, benzene, & benzin.

*Note.* — For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## Acid Pieronitric. — see Acid Picric

## Acid Piperic Merck (70)

By decomp. piperine w. boil. alcohol.  $KOH$ . —  $C_{22}H_{10}O_4$ , or,  $CH_2 : O_2 : C_6H_3.CH_2.CH : C : CH.COOH$ . — Yellowish cryst. — *Sol.* A., E. — *Melt.*  $216-217^\circ C.$

## Acid Piperonylic Merck (200)

(Methene-[or methylene-]protocatechuic Acid). — Fr. piperonal by oxidation. —  $C_8H_6O_4$ , or,  $C_6H_3(O_2CH_2)COOH$ . — Yellowish cryst. — *Sol.*, hot A. — *Melt.*  $228^\circ C.$

## Acid Pipitzahoic (800)

(Perezoni; Perezol). —  $C_{15}H_{20}O_3$ . — Fr. roots of *Perezia adnata* (Pipitzahoac). — Golden-yellow, shining scales. — *Sol.*, eas. A., E., C. — Mild

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are both **STANDARD** and **COST NO MORE.**



Cathartic.—*Uses*: Chiefly as indicator in volum. analysis (acids = light-yellow; alkalis = red).—*Dose* 3-5 grains (0.2-0.3 Gm.).

*Acid Plumbic, Anhydrous*.—see **Lead Oxide, Brown**

*Acid Polychromic*.—see **Acid Aloetic**

*Acid Polygalic*.—see **Senegin**

**Acid Propionic Merck**.—Pure (14

(Methylacetic, Metacetic, or Ethylcarbonic, Acid).—Fr. propylic ale. by oxid'n.— $C_3H_6O_2$ , or,  $C_2H_5COOH$ .—Clear, colorl. liq.; odor like that of acetic & butyric acids.—Sp. Gr. 1.013 at 0° C.—*Misc.*, all prop. W.—*Boil.* 141° C.

do. Merck.—Fr. Ethyl Cyanide (100

(Acid) Propionic Anhydride Merck (100

( $C_2H_5CO_2$ )<sub>2</sub>O.—Colorl. liq.—Sp. Gr. 1.0169 at 15° C.—*Boil.* 163° C.

**Acid Propionylsalicylic**

$COOH.C_2H_5OC(O).(CH_2.CH_3)$ .—Obt. by action of propionic anhydride on salicylic acid.—Colorl., lustrous scales.—*Sol.* A., B., E., C.; diffc. W.—*Melt.* 95° C.—*Antipodagr.*; *Antirheum.*—*Dose* 10-20 grains (0.6-1.3 Gm.).

*Acid Propylactic, Normal*.—see **Acid Valeric, Normal**

*Acid Propylformic*.—see **Acid Butyric**

**Acid Protocatechuic Merck** (200

(Dioxybenzoic Acid).—By fusing East-Indian kino w. NaOH.— $C_7H_6O_4$ , or,  $C_6H_3(OH)_2COOH$  [1:3:4].—Reddish cryst.—*Sol.* A., E.—*Melt.* 199-200° C.—*Astringent*.

*Acid Prussic*.—see **Acid Hydrocyanic**

*Acid Purric*.—see **Acid Euxanthic**

*Acid Pyridinedicarboxylic, Alphabet-*.—see **Acid Quinolinic**

*Acid Pyroboric*.—see **Acid Tetraboric**

*Acid Pyrocatechuic*.—see **Pyrocatechin**

**Acid Pyrogallic Merck**.—Resublimed (3

(Pyrogallol).—Fr. gallic acid by heat.— $C_6H_6O_3$ , or,  $C_6H_3(OH)_3$  [1:2:3].—Wh., lustr. cryst.; bitter.—*Sol.* 1.6 W., 1 A., & 1.1 E. at 25° C.; v. sol. boil. W. & boil. A. (U. S. P.).—*Melt.* 131° C.—*Boil.* 210° C.—*Uses*: *Extern.*, in psori. & o. skin. dis.; oint. (1 in 10).—*Techn.*, this grade has long enjoyed preeminence as an exceedingly satisfactory & efficient developer in photography; also in cosmetics, in manuf. of gallein, &c.—*Caut.* Poisonous! Keep fr. light.

*Note*.—The resublimation adapts this preparation particularly for photographic uses, as well as for medicinal purposes.

do. Merck.—Crystallized (3

Sm., colorl., heavy cryst.—Chem. & physical properties, uses, etc., as of preceding.

**Acid Pyrogallic Merck**.—Reagent (4

(Pyrogallol).— $C_6H_3(OH)_3$ .—Wh., lustr. need., or scales.—*Sol.* 1.7 W., 1 A., 1.2 E.; diffc. B., C., CS<sub>2</sub>.—*Tests*: (*Res.*) 1 Gm. volat. without wghble res.—(*Gallic Acid*) 2 Gm. compl. solub. in & affords clear solut. w. 5 Ce. E. (sp. gr. 0.72).—*Uses*: Gas analysis; determ. nitric & nitrous acids; detect. propeptone, cell membrane, & sulfonal.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

*Acid Pyrogallic, Oxidized*.—see **Pyrogallol, Oxidized**

**Acid Pyroligneous Merck**.—Purified (1

(Wood, or Pyroligneous, Vinegar).—Acetic acid & homologues.—Fr. wood by destruct. distil.—Yellowish liquid; str. odor of furfural; v. acid.—7% of acetic acid.—Sp. Gr. 1.018-1.030.—*Sol.* W., A.—*Uses*: Disinf. in mouth-washes and gargles in 5-10% solut.—*Dose* 8-15 ℥ (0.5-1 Ce.) w. much water, in noma.

do. Merck.—Crude (1

Brown liq.—*Uses*: Veterinary medicine, and for disinf. stables in epidemic diseases.—*Techn.*, smoking meats; in microscopy, for imbedding.

**Acid Pyromucic Merck** (100

Fr. mucic acid at 180° C., or by oxid'g furfural.— $C_6H_6O_8$ , or,  $C_4H_4O_7.COOH$ .—Yellowish cryst.—*Sol.* 4 W. at 100° C.; 28 W. at 15° C.—*Subl.* 100° C.—*Melt.* 134° C.

**Acid Pyrophosphoric Merck** (3

Fr. phosphoric acid, at 215° C.— $H_4P_2O_7$ .—Wh. cryst. mass; or liquid.—*Sol.* W.

*Acid Pyraccemic*.—see **Acid Pyrouvic**

**Acid Pyrotartaric Merck**.—Cryst. (70

(Methylsuccinic Acid).—By distil. tartaric acid or isomers.— $C_5H_8O_4$ , or,  $COOH.CH(CH_3).CH_2.COOH$ .—White or yellowish cryst.—*Sol.* A., E.; 1.5 W. at 20° C.—*Melt.* 112° C.

*Acid Pyrotartaric, Normal*.—see **Acid Glutaric**

**Acid Pyrouvic Merck** (60

(Pyraccemic, or Acetylcarbonic, Acid).—Fr. tartaric or uvic acid by distil.— $C_3H_4O_5$ , or,  $CH_3.CO.COOH$ .—Yellowish liq.—Sp. Gr. 1.288 at 18° C.—*Boil.* 165° C.—*Sol.* W., A., E.

*Acid Quercetinic*.—see **Quercetin**

**Acid Quercitannic Merck** (240

(Quercitannin).—Fr. oak bark, mainly fr. *Quercus Robur*, L.— $C_{12}H_{16}O_9$ (?).—Reddish-wh. powd.—*Sol.* W., A.—*Uses*: Tanning.

*Acid Quercitrinic*.—see **Quercitrin**

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 53=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Nyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Acid Quillaic Merck**

(2000

Fr. inner bark of *Quillaja Saponaria*, Molina (Soap bark).— $C_{10}H_{30}O_{10}$ .—Reddish-white, amorph. powd.—*Sol.* A., W.—*Expector.*—*Uses:* Violent protoplasmic poison, sugg. for pulmonary dis. Reag. f urine albumin.

**Acid Quinic Merck.—Cryst.**

(25

(Chinic, or Kinic, Acid).—Fr. cinchona bark.— $C_7H_{12}O_6 + H_2O$ , or,  $C_8H_{17}(OH)_4COOH + H_2O$ .—Wh., transp. prisms; v. acid taste.—*Sol.* W, A.—*Melt.* 160° C.—*Uses:* Uric-acid diathesis, usually in form of salts, e.g., lithium quinate (urosin), piperazine quinate (sidonal), urotropin quinate (climotropin), urea quinate (urol), etc.

**Acid Quinolic Merck**

(320

(Chinolic Acid; Nitrodioxyquinoline).— $C_8H_4N \cdot NO_2(OH)_2$ .—Oxidation prod. of cinchonine.—Yellowish cryst.—*Alm.* insol. W., A., & E.

**Acid Quinolinic Merck**

(200

(Chinolinic, or Alphabetapyridinedicarboxylic, Acid).—Fr. quinoline by oxid'n.— $C_7H_4NO_4$ , or,  $C_5H_3N(COOH)_2 [1:2:3]$ .—Yellowish cryst.—*Sol.*, sl. W. & A.; v. sl. E.—*Melt.* 231° C.

**Acid Quinopiric Merck**

(65

(Chinopiric Acid).—Mist. of quinine & cinchonine pierates (Horn).—Yellowish-brown powd.—*Sol.* W.

**Acid Quinovic Merck**

(40

(Chinovic Acid).—Deriv. of quinovin(chinovin).— $C_{24}H_{38}O_4$  (Hlasiwetz & Gilm).—Yellowish cryst. powd.; tastel.—Dextrorotatory.—*Sol.* E., C.; sl. A.; insol. W.

**Acid Racemic Merck.—Inactive**

(60

(Parataratic, Inactive Tartaric, or Uvic, Acid).—By-prod. of tartaric acid manuf.— $C_2H_4O_2 \cdot (COOH)_2 + H_2O$ .—Transp., colorl., tricl. cryst.—*Sol.* W., A.—*Melt.* 205–206° C., when anhydrous.

**Acid Resorcinoldisulphonic Merck**

(12

Fr. resorcinol by sulphuric acid.— $C_6H_6S_2O_8 + 2H_2O$ , or,  $C_6H_2(OH)_2(SO_3H)_2 + 2H_2O$ .—Deliq., wh. cryst.—*Sol.* W., A.—Decomp. at 100° C. without melting.

**Acid Rheic.—see Rhein**

**Acid Ricinoleic Merck**

(13

Yellowish, viscid liq.—*Sp. Gr.* 0.945 at 15° C.—*Sol.* A., E., C.

**Acid Roseine.—see Ruby S**

**Acid Rosolic Merck**

(6

(Pararosolic Acid; Commercial Rosolic Acid; Aurin Red).—Mixture aurin ( $C_6H_4OH)_2 \cdot C_6H_4CO$ , and pseudorosolic acid, oxidized aurin, and methylaurin.—Fr. phenol by oxalic acid w. conc. sulphuric acid.—Red lumps w. green reflection and fracture.—*Sol.* A.—*Uses:* Coloring for spirit varnishes and lacquers.

**Acid Rosolic Merck.—Reagent**

(8

(Corallin).—Brittle, amorph., reddish-brown pieces; metallic luster.—*Sol.*, eas. A.; insol. W.—*Tests:* (*Sensitiveness*) 2–3 drops solut. (0.5 Gm. in 50 Cc. 85% A.+50 Cc. W.)+100 Cc.  $H_2O$ +0.05 Cc. decinorm. KOH—pale-yellow color should change to rose-red; on further add. 0.05 decinorm. HCl, pale-yellow color restored.—*Uses:* Indicator (alkalies = violet-red; acids = yellow).

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Rubine.—see Ruby S**

**Acid Rufigallic Merck**

(32

(Rufigallol; Hexaaxyanthraquinone).—Fr. gallic, or tannic acids, by str.  $H_2SO_4$ .— $C_{14}H_8O_8 + 2H_2O$ , or,  $(OH)_3C_6H(CO)_2C_6H(OH)_3 + 2H_2O$ .—Reddish-brown cryst. *Sol.* E.; insol. W.

**Acid Rutic.—see Acid Capric**

**Acid Saccharolactic.—see Acid Mucic**

**Acid Salicylic Merck.—Pure, Amorph.**

(1

(Ortho-oxybenzoic Acid).—Fr. carbolic acid, by caustic soda w. carbon dioxide.— $C_7H_6O_2$ , or,  $C_6H_4(OH)COOH$  [1:2].—Light, fine, wh., cryst. powd.; sweet taste & acrid after-taste.—*Sp. Gr.* 1.443–1.457.—*Sol.* 2 E., 2.4 A., 60 G., 80 C., 450 W. at 15° C.; (308 W., 2 A. at 25° C.; 14 boil. W.; v. sol. boil. A., U. S. P.).—*Melt.* 156–157° C. Volat. at h. temp.—Antisep.; Antipruritic; Antirheum.; Antipyr.; Antihidr.—*Uses:* *Extern.*, wounds, skin dis., & infl. surfaces; corns.—*Intern.*, rheum., migraine, neural., influenza, pericard., scar. fev., pleurisy, &c.—*Dose* 10–20 grains (0.6–1.3 Gm.), in wafers, or powd.—*Appl.*, in 2–5% hydro-alcoh. solut.; in 5-% admixture w. talcum in excessive perspiration.—*Tech.*, admittedly the safest & most efficient preservative of fruit, wine, beer, meat, & in fact all food products.

*Note.*—Being free from the customary poisonous phenolic impurities, this preparation is especially adapted for medicinal purposes.

do. Merck.—U. S. P.—Cryst.

(1

do. Merck.—Natural.—Fr. Oil of Wintergreen

(7

Fr. essential oil of wintergreen, *Gaultheria procumbens*, L.; or oil of sweet birch, *Betula lenta*, L.—Colorl. cryst.; mostly w. character. odor.—*Melt.* 150–157° C.

**Acid Salicylous Merck**

(12

(Salicylic Aldehyde; Ortho-oxybenzaldehyde).—Fr. phenol, by potassa w. chloroform.— $C_7H_6O_2$ , or,  $C_6H_4OH.CO.H$ .—Yellow oil; arom. odor.—*Sp. Gr.* 1.165–1.172 at 15° C.—*Sol.*, v. sl. W.; all prop., A., E.—*Boil.* 196° C.—*Uses:* Detect. acetone in urine.

do. Merck.—Natural

(120

Fr. flowers of *Spirea Ulmaria*, L. (Queen of the

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



Meadow).—*Uses*: Disinfect. in 0.1 to 0.25% solut.—*Techn.*, in perfumery.

*Acid Salicylsulphonic.* } —see **Acid Sulphosalicylic**  
*Acid Salicylsulphuric.* }

**Acid Santalic Merck.**—**Pure** (140  
(Santalinic Acid).— $C_{15}H_{14}O_5$ .—Brownish-red powd.—*Sol.* A., E., alkalies.

*Acid Santalic, Crude.*—see **Santalin**

**Acid Santonic Merck** (10  
By boil. santonin w. baryta water.—Isomeric, not identical, w. santonicinic acid.— $C_{15}H_{20}O_4$ .—Wh. cryst.—*Sol.* W., A., E., C.—*Melt.* 161–163° C.

**Acid Santonic Merck.**—**Cryst.** (220  
(Miscalled "Santonin Acid").—By heat. santonin w. solut. NaOH or KOH.— $C_{15}H_{20}O_4$ , or,  $C_{14}H_{18}O_2 \cdot COOH$ .—Colorl. cryst.—*Sol.*, eas. A., C.; sl. W., E.—Decomp. at 120° C. into santonin & W.—*Anthelm.*—*Uses*: Intest. worms, us'y as sol. santoninate.—*Dose* 1–5 grains (0.06–0.3 Gm.).

*Acid Santonic, Anhydrous.*—see **Santonin**

*Acid Satiric.*—see **Acid Tetraoxystearic**

*Acid Sclerotic (or -inic).*—see **Acid Ergotic**

**Acid Sclerotic Dragendorff-Merck** (90  
(Sclerotinic Acid).—Fr. sclerotium of *Claviceps purpurea*, *Tulasne* (Ergot of rye).—Amorph., brown powd.—*Sol.* W.—*Hemostat.*; *Antiepilep.*—*Dose* 1 grain (0.06 Gm.) once or twice daily, per os, or by inj. in 1:1000 aqu. solut. thymol.—*Max. D.*, daily, 5 grains (0.3 Gm.).—*Caut.* The solutions are readily decomp., hence only suff. for 2 or 3 days should be prepared. Keep well stoppered. See also Acid, Ergotic.

**do. Podwyssotzki-Merck** (120

Fr. sclerotium of *Claviceps purpurea*, *Tulasne* (Ergot of rye).— $C_{12}H_{19}NO_9$ (?).—Amorph., brown powd.—*Sol.* W.; sl. A.—*Oxytoxic*; *Hemostat.*; *Antiepilep.*—*Uses*: Epilepsy, & intern. hemorrhage.—*Dose*  $\frac{1}{2}$  grain (0.03 Gm.).—*Inj.*,  $\frac{2}{5}$ – $\frac{3}{4}$  grain (0.04–0.05 Gm.).—*Max. D.*, 5 grains (0.3 Gm.) p. d.—*Caut.* Keep dry.

**Acid Sebacic Merck.**—**Cryst.** (10  
(Sebacinic, or Sebacylic, Acid).—Fr. fats cont'g olein by heat. w. alkalies.— $C_{16}H_{32}O_4$ , or,  $C_8H_{16}(COOH)_2$ .—Wh. cryst.—*Sol.* A., E., C.; sl. in W.—*Melt.* 127–128° C.

*Acid Sebacylic.*—see **Acid Sebacic**

**Acid Selenic Merck.**—**Sp. Gr.** 1.40 = 42° Bé.—**Pure** (110  
(Selenic Hydroxide).—Fr. selenous hydroxide & chlorine- or bromine water.— $H_2SeO_4$ .—Colorl., corros. liq.; str'ly acid.—*Misc.*, all prop. W.—Decomp. 280° C.

**Acid Selenous Merck.**—**Sublimed** (200  
(Selenious Acid).—Fr. selenium, by hot nitric acid.— $H_2SeO_3$ .—Transp., colorl. cryst.—*Sol.*, h. W.—*Uses*: w.  $H_2SO_4$  as alkaloidal reagent.

(**Acid**) **Silicic Anhydride Merck.**—**Pure, wet process** (2  
(Precipitated Silica).—Fr. sol. silicates, by mineral acid.— $SiO_2$ .—Snow-wh., bulky, amorph. powd.—*Sol.*, hot alkal. solut.

**do. Merck.**—**Pure, natural** (2  
(Quartz; Flint; Sand; Chalcedony; Opal; Agate; Infusorial Earth, &c.).— $SiO_2$ .—Transp., colorl. cryst.; odorl.; tastel.; harder than glass or steel.—*Sol.*  $HF$ ; partially in hot alkalies.

*Acid Silicofluorhydric.* } —see **Acid Hydrosilicofluoric**  
*Acid Silicofluoric.* }

**Acid Silicotungstic Merck** (30  
(Silicowolframic Acid).— $4H_2O \cdot SiO_2 \cdot 12WO_3 + 22H_2O$ .—Wh. to yellowish-wh. cryst.—*Sol.* A., W.—*Uses*: As alkaloidal reagent, and as mordant for basic aniline dyes.

*Acid Silicowolframic.*—see **Acid Silicotungstic**

*Acid Silvic.*—see **Acid Sylvic**

**Acid Sorbic Merck.**—**Cryst.** (400  
(Sorbic Acid).—Fr. berries *Pyrus aucuparia*, Gaertner (Mountain Ash).— $C_6H_8O_2$ , or,  $CH_3 \cdot CH \cdot CH \cdot CH \cdot COOH$ .—Yellowish-wh. cryst.—*Sol.* W., A.—*Melt.* 134° C.

**Acid Sozoiodolic** (30  
(Diiodoparaphenolsulphonic Acid).— $C_6H_2I_2 \cdot OH \cdot SO_3H + \frac{1}{2}H_2O$ .—Cryst.—*Sol.*, eas. W., A., & G.—*Uses*: As vulnerary in 2–3% aqueous solution.

*Acid Sozolic.*—see **Aseptol**

**Acid Stearic Merck** (12  
(Stearic, Cetylacetic, or Stearophanic, Acid).—Fr. solid animal fats, by saponif.— $C_{18}H_{36}O_2$ , or,  $C_{17}H_{35}COOH$ .—Solid, wh., hard, glossy mass; odorl.; tastel.—Wh. cryst.—*Sol.* B.; abt. 16.6 A. at 25° C.; eas. boil. A., E.; insol. W. (U. S. P.).—*Melt.* 69.2° C. (U. S. P.).—*Boil.* 287° C. at 100 Mm.

*Acid Stearophanic.*—see **Acid Stearic**

(**Acid**) **Stibic Anhydride.**—see **Antimony Oxide, Antimonious**

(**Acid**) **Stibious Anhydride.**—see **Antimony Oxide, Antimonous**

**Acid Suberic Merck** (300  
Fr. cork, castor oil, &c., by  $HNO_3$ .— $C_8H_{14}O_4$ , or,  $C_6H_{12}(COOH)_2$ .—Wh. cryst.—*Subl.*, at h. temp.—*Sol.* A., E.—*Melt.* 140° C.

**Acid Succinic Merck.**—**Pure, cryst.** (9  
(Ethylenesuccinic, or Ethylenedicarboxylic Acid).—Fr. amber by distill'n. or fr. calcium

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Nyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

imilate w. casein by ferment— $C_4H_6O_4$ , or,  $C_2H_4(COOH)_2$ .—Colorl. cryst.; odorl.; acid taste.—*Sol.* 5 W., A.; sl. E.; insol. C. & B.—*Boil.* 235° C.—*Melt.* 182° C.—Antispasmod.; Diuretic.—*Uses:* Us'd as solut. of amm. succinate for cramps; hyst., delir., trem., etc.—*Dose* 5-15 grains (0.3-1 Gm.) several t. p. d.

**Acid Succinic Merck. Purified** (8)

do. Merck.—Crude (7)

Brownish-yellow cryst. cont'g succinic anhydride.—*Sol.* A.; partly in W.

**Acid Succinic Merck.—Reagent** (16)

$C_4H_6O_4$ . Colorl., monoclin. prisms.—*Sol.* 20 cold, & abt. 2 boil. W.; 10 A.; 80 E.—*Melt.* 182° C.—*Boil.* 235° C. w. decomp.—*Tests:* (Res.) heat 1 Gm. in platin. dish no wghble res., & no charring.—( $H_2C_2O_4$ ) 1 Gm. + 20 Cc.  $H_2O$  + solut.  $CaCl_2$ —no react.—(*Tartaric Acid*; *Sulphates*) 1 Gm. + 20 Cc.  $H_2O$  + solut.  $KC_2H_3O_2$  or  $Ba(NO_3)_2$ —no ppt. on stand. 12 hrs.—(*Cl*) 1 Gm. + 20 Cc.  $H_2O$  + 2-3 Cc.  $HNO_3$  (sp. gr. 1.153) + solut.  $AgNO_3$ —not more than sl. opalesc. turb.—(*NH<sub>4</sub> Salts*) heat 1 Gm. w. 10 Cc. solut.  $NaOH$  (sp. gr. 1.13)—no  $NH_3$  evolved (test w. moist litmus paper).—(*Heavy Metals*) 1 Gm. + 20 Cc.  $H_2O$  + aqu.  $H_2S$ —no react.—*Uses:* Separating iron & manganese; reagent for albumin.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**(Acid) Succinic Anhydride Merck** (50)

(Succinic Anhydride; Succinyl Oxide; so-called "Anhydrous Succinic Acid").—Fr. hydrated succinic acid & succinyl chloride by distill'n.— $C_4H_4O_3$ , or,  $CO(CH_2CO)_2$ .—Wh. to yellowish cryst.—*Sol.* A.—*Melt.* 119° C.

**Acid Sulphanilic Merck.—Cryst., white** (4)

(Para-aminobenzenesulphonic, or Para-aniline-sulphonic, Acid).—By heat. aniline w. fum.  $H_2SO_4$ — $NH_2C_6H_4SO_3H + 2H_2O$ .—Colorl. cryst.—*Sol.*, sl. W.; insol. A., E.—Anti-catarhal; Analg.—*Uses:* Intern., coryza, catarrh. laryng., &c.—*Dose* 10-20 grains (0.6-1.3 Gm.) 1 or 2 t. p. d. in aqu. solut. w. sod. bicarb.

**Acid Sulphanilic Merck.—Reagent** (5)

$C_6H_4(NH_2)[1].(HSO_3)[4] + 2H_2O$ .—Colorl., acic., effloresc. cryst.—*Sol.*, diffic. cold W. (abt. 150); more read. hot W.; insol. A., E., B.—Does not melt; carbonizes on heat. to 280-300° C.—*Tests:* (Res.) ignite 1 Gm.—none wghble.—( $H_2SO_4$  [*Aniline Sulphate*]) 1 Gm. + 25 Cc. boil.  $H_2O$  + solut.  $BaCl_2$ —no turb.—(*HCl* [*Aniline Hydrochloride*]) shake 1 Gm. w. 20 Cc.  $H_2O$ , filter, & add a few drops  $HNO_3$  &  $AgNO_3$  solut. to filtrate—at most only sl. opalesc. turb.—*Uses:* Detect. nitrites & bile pigments, & in Ehrlich's test for typhoid fever.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by

D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Sulphethylic.**—see **Acid Ethylsulphuric**

**Acid Sulphindigotic.** }  
**Acid Sulphindilic.** } —see **Acid Indigosulphonic**

**Acid Sulphocarbalic.**—see **Aseptol**; **Acid Phenol-sulphonic, Commercial**

**Acid Sulphocholic.**—see **Acid Taurocholic**

**Acid Sulpholeic Merck** (80)

(Sulpholeinic, or Oleosulphonic, Acid).—Fr. fixed oils, by sulphuric acid— $C_{18}H_{36}O_7S$ , or,  $C_{16}H_{32}(COOH)_2SO_3H$ .—*Sol.*, oils.

**Acid Sulphomolybdic Merck** (12)

$MoO_3.SO_3(MoO_3.SO_4)$ .—Violet-brown, cryst. powd.—*Sol.* W.

**Acid Sulphonaphthylaminic.**—see **Acid Naphthylaminesulphonic, Alpha-**

**Acid Sulphoricinic** (6)

(Sulphoricinoleic Acid).—Fr. castor oil, by sulphuric acid.—Oily liq.—Sp. Gr. 1.015-1.02 at 17° C.—*Sol.* W., A.—Antisept.; Irrit.; Deodor.—*Uses:* Etern., ozena, ulcerat. & skin dis., dipht., tuberc. troubles of muc. membr.—*Chem.*, solv. for sulphur, phenol, iodine, &c.

**Acid Sulphosalicylic Merck** (8)

(Salicylsulphuric, or Salicylsulphonic, Acid).—Fr. salicylic acid, by sulphuric anhydride.— $C_7H_6SO_6$ , or,  $C_6H_5SO_3H.(OH).COOH$ .—Wh. cryst.—*Sol.* W., A.—*Melt.* 120° C.—*Uses:* As delicate & exceedingly sharp urine-albumin test.

**Acid Sulphotumenolic.**—see **Tumenol Powder**

**Acid Sulphovinic.**—see **Acid Ethylsulphuric**

**Acid Sulphovinous.**—see **Acid Ethylsulphurous**

**Acid Sulphuric.**—Pure.—"C. P."—Sp. Gr. 1.840 = 66° Bé. (1)

(Oil of Vitriol; Dihydrogen Sulphate).—Fr. sulphur dioxide by oxid'n.— $H_2SO_4$  + aq.—Abt. 96% acid.—Str'ly corros., dense, oily liq.—*Misc.*, all prop., W., A., w. evolution of heat.—*Boil.* 338° C.—*Uses:* Techn., prepar. o. acids; salts; purif. organic & inorganic substances; drying agent; exciting liquid in electric batteries, &c.

do.—*U. S. P.*—Sp. Gr. 1.826 at 25° C. (1)  
92.5%  $H_2SO_4$ .

do.—Diluted.—*U. S. P.* (1)

10%  $H_2SO_4$ .—Sp. Gr. abt. 1.067 at 25° C.—*Uses:* Intern., gastro-intest. disorders, phthisical sweats, exophthalmic goiter; solvent for quinine and o. alkaloids.—*Dose* 15-30 M (1-2 Cc.) well diluted (conc. acid not used medicinally).—*Antid.*, magnesia; soda lyc, a drop or two at a time; small pieces of ice; oil; soap shavings followed by water; use stomach pump w. great caution, to avoid danger from perforation.

do.—Sp. Gr. 1.848 = 66° Bé.—Crude (1)

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Acid Sulphuric Merck.—Reagent.—Sp. Gr. 1.84 (2**

$\text{H}_2\text{SO}_4$ .—Clear, colorl., oily liq.; 95–96%  $\text{H}_2\text{SO}_4$ .

—*Tests: (Res.)* evap. 10 Cc. — none wghble.—( $\text{HNO}_3$ ) 1 Cc. + 9 Cc.  $\text{H}_2\text{O}$ , & overlay on 5 Cc. solut. diphenylamine — no blue zone at place of contact of liquids.—(*Se*) overlay 2 Cc. w. 2 Cc.  $\text{HCl}$  (sp. gr. 1.124) cont. a granule  $\text{Na}_2\text{SO}_3$  dissolved — no red zone, or red ppt. on warm.—(*Subst. Oxidiz. by*  $\text{KMnO}_4$  [ $\text{HNO}_3$ ;  $\text{SO}_2$ ]) 15 Cc. + 60 Cc.  $\text{H}_2\text{O}$  + 1 drop decinorm.  $\text{KMnO}_4$  — pink color should not disapp. within 10 minutes.—( $\text{HCl}$ ;  $\text{HBr}$ ;  $\text{HI}$ ) 2 Cc. + 30 Cc.  $\text{H}_2\text{O}$  + solut.  $\text{AgNO}_3$  — no react.—(*Pb*) 10 Cc. + 50 Cc. 85% alcoh. (cautiously) — no turb., & no ppt. ( $\text{PbSO}_4$ ) within 2 hrs.—(*Heavy Metals & Ca*) a: 10 Cc. + 50 Cc.  $\text{H}_2\text{O}$  +  $\text{NH}_4\text{OH}$  in excess + few drops ( $\text{NH}_4$ )HS & ( $\text{NH}_4$ ) $_2$  $\text{C}_2\text{O}_4$  — no green color or turb.; b: 20 Cc. + 100 Cc.  $\text{H}_2\text{O}$ , & pass in  $\text{H}_2\text{S}$  gas — no brown color, or brown flocks on long stand. (*Sn.*) —( $\text{NH}_4$ Salts) 2 Cc. + 30 Cc. W. + 1:6 solut.  $\text{KOH}$  to alkalinity + 10–15 drops Nessler's reagent — at most a light-yellow, but no brownish-red, ppt. may form.—(*As*) start Marsh appar. using 20 Gm. As-free gran. Zn & As-free dil. (1:5)  $\text{H}_2\text{SO}_4$ ; when air expelled, heat reduct. tube to redness, run in cooled mixt. 10 Cc. acid to be tested w. 50 Cc.  $\text{H}_2\text{O}$  — no As should deposit in reduct. tube within half an hour.—*Uses:* Detect. arsenic, especially in forensic analysis; determin. Pb, Ba, & N; gas-, oil-, & microscop. analysis, &c.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.—Reagent.—Sp. Gr. 1.110—1.114 (1**

Colorl. liq.; 15.7–16.3%  $\text{H}_2\text{SO}_4$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.—Reagent.—Sp. Gr. 1.070 (1**

$\text{H}_2\text{SO}_4$ .—Colorl. liq.—Sp. Gr. abt. 1.070.—Abt. 10%  $\text{H}_2\text{SO}_4$ .—*Tests:* As under Acid Sulphuric, Reagent, Sp. Gr. 1.84, but using 15 Cc. of 1.070 acid instead of 1 Cc. of 1.84 acid.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Sulphuric with Phosphoric Anhydride Merck.—Reagent; abt. 9.8%  $\text{P}_2\text{O}_5$ , 15%  $\text{P}_2\text{O}_5$ , or 20%  $\text{P}_2\text{O}_5$ .—For Kjeldahl Nitrogen Determination**

*Tests: (HNO<sub>3</sub>)* 1 Cc. + 9 Cc.  $\text{H}_2\text{O}$ , & overlay on 5 Cc. solut. diphenylamine — no blue zone.—( $\text{NH}_4$  Salts) 2 Cc. + 30 Cc.  $\text{H}_2\text{O}$  + solut. (1:6)  $\text{KOH}$  to alkalin. + 10–15 drops Nessler's reagent — at most only faint yellow, but no brownish-red, color, or ppt.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by

D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**(Acid) Sulphuric Anhydride Merck (8**

(Sulphur Trioxide; so-called "Anhydrous Sulphuric Acid").—Fr. fum.  $\text{H}_2\text{SO}_4$  by distill'n. — $\text{SO}_3$ .—Solid, transp. prisms, evol. heat on contact with W.—*Melt.* 16° C.—*Boil.* 46° C.—*Uses:* Absorbent of water; manuf. of explosives & dyes (indigo); purif. petroleum, &c.

**(Acid) Sulphuric Anhydride Merck.—Reagent (9**

$\text{SO}_3$ .—Long, transp., colorl. prisms.—*Melt.* 15° C. to oily liq.—*Boil.* 46° C.—On long keeping below 25° C., polymerizes to a modifie. forming long, silky, felted need. melt. above 50° C., & which at greater heat bec. converted into gaseous trioxide boil. at 46° C., & solidif. at 15° C.—*Uses:* Fortifying ordinary  $\text{H}_2\text{SO}_4$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Sulphuric Aromatic.—U. S. P.**

(Elixir of Vitriol).—Sulphuric acid w. alc., tinct. of ginger & oil of cinnamon.—Straw-colored liq.; pecul. arom. odor; pleas. acid taste when dil.—Tonic; Astring.—*Uses:* Phth. night sw.; relaxed condit. of muc. memb. of intest.—*Dose* 10–20  $\text{m}$  (0.6–1.3 Cc.) 3 t. p. d., with W.

**Acid Sulphuric Fuming Merck.—Reagent (1**

$x\text{H}_2\text{SO}_4 + y\text{SO}_3$ .—Colorl., oily liq.; fumes in air; 8–10% free  $\text{SO}_3$  (=83.1–83.5% total  $\text{SO}_3$ ).—*Tests: (Res.)* evap. & ignite 3 Cc. — none wghble.—( $\text{HNO}_3$ ) 1 Cc. + 9 Cc.  $\text{H}_2\text{O}$ , & overlay on solut. diphenylamine — no blue zone.—( $\text{NH}_4$  Salts) 2 Cc. + 30 Cc.  $\text{H}_2\text{O}$  + 1:6 solut.  $\text{KOH}$  to alkalinity + 15 drops Nessler's reagent — at most pale-yellow, but no brownish-red, ppt. may form.—(*Halogens*) 1 Cc. + 30 Cc.  $\text{H}_2\text{O}$  + solut.  $\text{AgNO}_3$  — not more than sl. opalesc. turb.—(*Pb*) 10 Cc. + 50 Cc. 85% A. (cautiously) — clear liq., & no ppt. of  $\text{PbSO}_4$  within 2 hrs.—(*As*) start Marsh appar. w. 20 Gm. As-free gran. Zn & As-free dil. (1:5)  $\text{H}_2\text{SO}_4$ ; when air expelled, heat reduct. tube to redness; introduce cooled mixt. 10 Cc. acid to be tested w. 90 Cc.  $\text{H}_2\text{O}$  — no deposit of As in reduct. tube within half an hour.—*Uses:* Oxidizer; gas analysis; organ. synthesis.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.—Reagent.—For Kjeldahl Nitrogen Determination (2**

Oily liq.; somet. sl. colored, & often not perfect. clear; fumes in air; 8–10% free  $\text{SO}_3$ .—*Tests: (N)* dil. 30 Cc. w. 200 Cc.  $\text{H}_2\text{O}$  in a retort; when cold, add N-free solut.  $\text{NaOH}$  (sp. gr. 1.3) till strongly alkaline, & 3 Gm. Zn-dust; distil. off abt. 50 Cc. & collect in a U-tube receiver cont.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



abt. 10 Ce.  $H_2O + 2-3$  Ce. fifth-norm. HCl. Titrate w. fifth-norm. KOH (methyl orange indic.) — quant. of KOH used should not be more than 0.2 Ce. less than the fifth-norm HCl taken.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Sulphuric Fuming, with Phosphoric Anhydride Merck.**—Reagent; 5%  $P_2O_5$ , 10%  $P_2O_5$ , 15%  $P_2O_5$ , 20%  $P_2O_5$ , or 25%  $P_2O_5$ .  
—For Kjeldahl Nitrogen Determination.

*Tests:* (N) see Acid Sulphuric, Fuming, Reagent.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Sulphurous Merck.**—Solution.—U. S. P. (1) (Solution Sulphur Dioxide).—Fr. sulphuric acid by reduct.—Abt. 6%  $SO_2$ .—Colorl., acid liq.; suffoc. sulphur odor.—Sp. Gr., abt. 1.028 at 25° C.—*Misc.*, all prop. W.—*Antisep.*—*Uses:* *Intern.*, flatulent dysp., typhoid fev., &c.—*Extern.*, diphth., sloughing wounds, chilbl., skin dis., &c. Inhal. in bronch. affect., whoop-cough, &c.—*Techn.*, preserv.; also as antichlor. in paper manuf., in extracting copper fr. certain ores, in manuf. of Scott's cement, for dissolving auriferous & argentiferous pig-iron, in brewing, bleaching animal substances and wicker ware, in dyeing & printing, &c.—*Appl.* 10-25% solut.—*Dose* 15-60 M (1-4 Ce.).—*Antid.*, mustard plaster on chest; narcotics; expectorants.

**Acid Sulphurous Merck.**—Reagent (1)  $SO_2 + aq.$ —Clear, colorl. liq.—Abt. 6%  $SO_2$ .—Sp. Gr. 1.0297-1.035.—*Tests:* (Res.) none wghble on evap. 10 Ce.—*Uses:* Reducer; determ. Cu.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.**—Reagent.—Cubes

Cube-like pieces, yielding at least 20%  $SO_2$  when acidified.—*Uses:* Rapid & easy prep. of  $SO_2$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Sulphydic.**—see Hydrogen Sulphide Water

**Acid Sylvic Merck** (20) (Silvic, or Sylvinic, Acid).—Fr. colophony.— $C_{20}H_{30}O_2$ .—Yellowish cryst.—*Melt.* 135° C.—*Sol.* A.

**Acid Tannic Merck** (2) (Gallotannic, or Digallic, Acid; Tannin).—Organic acid fr. nutgalls.— $C_{14}H_{10}O_9$ .—Lustr., faintly yellowish, amorph., bulky powd., or

spongy masses; odorl.; astring. taste.—*Sol.* 0.6 A., 1 W., 3 G. at 15° C.; (very soluble in W. & A. at 25° C.; v. sol. boil. W. & boil. A., & in 1 G. w. heat; freely sol. dil. A., moderately in absol. A.; alm. insol. E., C, B.—U.S.P.)—Astring.; Internal Hemostatic; Antiseptic.—*Uses:* *Intern.*, hemorrhages, diar., dysent., dis. of serous membr., such as pleurisy, peritonitis, enteritis, &c., diab., Bright's dis. & night sw. of phth.; also in poisoning by alkaloids and metals.—*Extern.*, as styptic for bleeding; in 1- to 10-% solut., as gargle, inj., spray, mouth-wash, inhalat., enemas, etc.; & in weaker solut. as a collyrium. An ethereal tincture containing 2 or 3% is brushed over burns 2 or 3 times a day.—*Techn.*, purific. of water; improving wine; manufacture of ink.—*Dose* 1-10 grains (0.06-0.6 Gm.).—*Incomp.*, salts of antimony, copper, iron, lead, mercury and silver; iodine; iodoform; permanganates, chlorates, and other oxidizers; spt. nitrous ether; lime water, alkaloids, albumin, gelatin, starch.—*Caut.* Keep dark & well stoppered.

**Acid Tannic Merck.**—Highest Purity, Medicinal, light, clearly soluble (3

do. Technical

(1) Yellowish powd.—*Sol.* W., A.—*Uses:* *Techn.*, mordant in dyeing w. aniline and alizarine dyes; dyeing black; manuf. of ink; sizing silk; printing fabrics; in combin. w. gelatin (or glue) and albumin for manuf. imitat. horn and tortoise-shell; tanning, etc.

**Acid Tannic Merck.**—Reagent (4

(Tannin).— $C_{14}H_{10}O_9$ .—Yellowish powd., or cryst.-like, lustr. scales.—*Sol.* 5 W., 2 A. (85%), 8 G.; alm. insol. E.—*Tests:* (Res.) ignite 1 Gm.—wt. of res. should not exceed 0.002 Gm.—(Sugar; Dextrin) mix 10 Ce. aqu. (1:5) solut. w. 10 Ce. 85% A.—mixt. should remain clear for 1 hr.; no turb. on further add. 5 Ce. E.—( $H_2O$ ) dry at 100° C.—should not lose more than 12% of its weight.—*Uses:* Detect. iron, alkaloids, & albuminates.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Tantallic Merck** (320

(Tantalum Pentoxide; Tantallic Anhydride).— $Ta_2O_5$ .—Wh., microcryst. powd.—*Sol.*, in conc. HF; insol. HCl and  $H_2SO_4$ .—*Uses:* *Techn.*, manuf. of incandescant lights.

**Acid Tartaric, Inactive.**—see Acid Racemic

**Acid Tartaric Merck.**—Cryst. or powder (1

(Dioxysuccinic, or Ordinary Dextrotartaric, Acid).—Fr. argols.— $C_4H_6O_6$ , or,  $(CH_2)(OH)_2(COOH)_2$ .—Colorl., transp., rhombic cryst., or wh. powd.; strly acid taste.—Sp. Gr. 1.739-1.764.—*Sol.*, abt. 1 W., 3 A., 5 G., sl. E.; (0.71

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



W., 1.67 A. at 25° C.; 0.5 boil. W.; abt. 0.2 boil. A.; 250 E.; alm. insol. C., B.—U.S.P.)—*Melt.* 168–170° C.—*Refrig.*; *Antiseor.*—*Uses:* Seidlitz powd., baking powd., cool. drinks, &c.—*Extern.*, Hyperidrosis.—*Techn.*, chem. industry; dyeing; printing.—*Dose* 10–30 grains (0.6–2 Gm.).

**Acid Tartaric Merck.**—Highest Purity, cryst. or powder (1–2)

*Note.*—Whenever tartaric acid is prescribed, an acid of this grade exclusively should be dispensed, because of its freedom from the poisons, lead, & sulphuric & oxalic acids.

*do.*—Saccharated.—*N. F.*

Powd. tart. acid 675, & powd. sugar 325.

**Acid Tartaric Merck.**—Reagent (2)

$C_4H_6O_6$ .—Colorl., prism. cryst., or cryst. crusts.—*Sol.* 0.8 W., 2.5 A. (85%).—*Tests:* ( $H_2SO_4$ ;  $H_2C_2O_4$ ; *Ca*) treat separate portions of 20 Cc. each of 1:10 solut. w. *a:*  $BaCl_2$ —no turb.; *b:*  $(NH_4)_2C_2O_4$ —no turb.; *c:* add  $NH_4OH$  until only faintly acid, then solut.  $CaSO_4$ —no ppt.—(*Pb* & *o. Metals*) *a:* 5 Gm.+20 Cc.  $H_2O$ +12 Cc.  $NH_4OH$  (sp. gr. 0.96)+aqu.  $H_2S$ .—no brown color; *b:* 20 Cc. aqu. 1:10 solut.+aqu.  $H_2S$ —no reaction.—(*Res.*) ignite 1 Gm.—no wghble res.—*Uses:* Forensic analysis, detect. potassium, assistant in dissolving minerals, separation of some heavy metals, & estim. iron.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Tartronic Merck.**—Cryst. (900)

(Oxymalonic Acid).—Fr. mesoxalic acid, by sod. amalgam.— $C_3H_4O_5$ , or  $CH(OH)(COOH)_2$ .—Wh. or yellowish cryst.—*Sol.* W., A.—*Melt.* 184° C.

**Acid Taurocholic Merck** (1200)

("Choleic," or "Choleinic," Acid of Strecker & Demarcay; Choliaic, or Sulphocholic Acid).—Fr. bile.— $C_{26}H_{45}NSO_7$ .—Yellowish, cryst. mass.—*Sol.* W., A.—*Antisept.*; *Proteid precip.*

**Acid Telluric Merck** (1100)

(Trihydrated Telluric Oxide; Dihydrated Telluric Hydroxide; Hydrogen Tellurate).—Fr. barium tellurate, by sulphuric acid.— $H_2TeO_4 + 2H_2O$ .—Wh., monoclin. cryst.—*Sol.*, boil. W.—*Uses:* Reagent for solanine.

**Acid Tellurous Merck** (560)

(Hydrated Tellurous Oxide; Tellurous Hydroxide).—By add. dil. nitric solut. tellurium to W.— $H_2TeO_3$ .—Wh., cryst. powd.—*Sol.*, alkalis.

**Acid Terebic Merck** (400)

(Terebinic Acid; Diaterbinic Anhydride).—Fr. oil of turpentine, by boil. nitric acid.— $C_{10}H_{16}O_4$ , or  $C_5H_8(CO.O)COOH$ .—Wh. cryst.—*Sol.*, hot W., A.—*Melt.* 174° C.

**Acid Terephthalic Merck** (120)

(Paraphthalic Acid).—From hydrocarbons, by oxid'n with chromic acid.— $C_8H_6O_4$ , or  $C_6H_4(COOH)_2$  [1:4].—Wh. cryst.—*Sol.*, hot W.—*Subl.* without melting.

**Acid Terpenolic.**—see **Acid Terpenylic** (400)

**Acid Terpenylic Merck.**—Dried

(Terpenolic Acid; Diaterpenic Anhydride).—Fr. terpenes, by oxid'n w. potass. chlorate & sulphuric acid.— $C_{10}H_{12}O_4$ .—Wh. to yellowish cryst.—*Sol.* W.—*Melt.* 90° C.

**Acid Tetraboric Merck** (3)

(Pyroboric Acid).— $H_2B_4O_7$ .—Vitreous mass.—*Sol.* W., A.

**Acid Tetraoxystearic Merck** (200)

(Tetraoxystearinic, or Saticic, Acid).—Fr. linoleic acid, by oxid'n w. alkaline potass. permang.— $C_{18}H_{36}O_8$ , or  $C_{17}H_{31}(OH)COOH$ .—Long, cryst. prisms.—*Melt.* 159–161° C.

**Acid Thioacetic Merck** (30)

(Thiaetic, or Ethanethiolic, Acid; Schiff's Reagent).—Fr. glacial acetic acid & phosphorus pentasulphide.— $C_2H_3OS$ , or  $CH_3.CO.SH$ .—Clear liquid; pung. acetic, & hydrogen-sulphide odor.—*Sp. Gr.* 1.074 at 10° C.—*Boil.* 93° C.—*Caut.* Reacts violently w. conc. nitric acid.

**Acid Thioacetic Merck.**—Reagent (6)

$CH_3.CO.SH$ .—Yellow liq.; penetr. odor.—*Sol.* 16 W.; eas. A.—*Sp. Gr.* 1.070.—*Boil.* 92–97° C.—6% solut. used inst. of  $H_2S$  in chem. anal.—*Tests:* (*Res.*) evap. 10 Cc. & ignite—none wghble.—( $H_2SO_4$ ) 5 Cc.+100 Cc.  $H_2O$ +solut.  $BaCl_2$ —no turb. or ppt.—*Uses:* Schiff & Tarugi substit. it for hydrogen sulphide in chem. anal.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Acid Thiolic.**—see **Oil Linseed Sulphurated**

**Acid Thymic.**—see **Thymol**

**Acid Thyminic.**—see **Solulol**

**Acid Thymolsulphonic Merck** (45)

(Alphathymolsulphonic Acid).—Fr. thymol, by sulphuric acid.— $C_{10}H_{12}O_4.S_2O_3.H_2O$ .—Colorl. cryst.—*Sol.* W., A.—*Melt.* 91–92° C.

**Acid Tiglic Merck** (80)

(Methylcrotonic Acid; Crotonolic Acid).—Fr. fixed oil of Croton Tiglium, L. (Croton oil).— $CH_3.CH:C(CH_3).CO_2H$ .—Thick, syrupy liq.—*Vesic.*—*Uses:* Blistering agent.—*Antid.*, milk, oils or mucilage; stim. & opium.—*Caut.* Very poisonous!

**Acid Titanic Merck.**—Highest Purity (10)

(Titanic Hydroxide; Metatitanic Acid; Hydrated Titanium Dioxide).— $H_2TiO_3$ .—Wh.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

powd.—*Sol.*, mineral acids—*Uses*: W. oxalic acid as mordant in textile industries.

## (Acid) Titanic Anhydride Merck. — Highest Purity (16)

(Titanium Oxide, or Dioxide; Anhydrous Titanic Acid).— $\text{TiO}_2$ .—Wh. powd.; when gently heated is lemon-yellow, when strly heated, brown or black.—*Sol.*, mineral acids.

## Acid Toluic (Meta-) Merck (100)

(Metatoluylic Acid).—Fr. metaxylene, by oxid'n w. nitric acid.— $\text{C}_6\text{H}_4\text{O}_2$ , or,  $\text{C}_6\text{H}_4\text{CH}_3$ —(COOH).—Wh. to yellowish cryst.—*Sol.* W., A., E.—*Melt.* 108–109° C.—*Subl.* readily.

## Acid Toluic (Ortho-) Merck (80)

(Toluylic, Methylphenylformic, or Methylbenzoic, Acid).—Fr. orthoxylene, by oxid'n w. dil. nitric acid.— $\text{C}_6\text{H}_4\text{O}_2$ , or,  $\text{C}_6\text{H}_4\text{CH}_3$ —(COOH).—Wh. cryst.—*Sol.* W., A.—*Melt.* 102° C.

## Acid Toluic (Para-) Merck (80)

(Paratoluylic Acid).—Fr. cymene or turpentine, by oxid'n w. nitric acid.— $\text{C}_6\text{H}_4\text{O}_2$ , or,  $\text{C}_6\text{H}_4\text{CH}_3$ —(COOH).—Transp. need.—*Sol.* A., E.—*Melt.* 180° C.—*Boil.* 274–275° C.; volat in steam.

Acid Toluylic.—see Acid Toluic, Ortho-

## Acid Tribromacetic Merck (80)

Fr. bromal, by oxid'n w. nitric acid.— $\text{C}_2\text{HBr}_3\text{O}_2$ , or,  $\text{CBr}_3$ —(COOH).—Colorl. cryst.—*Sol.* W., A.—*Melt.* 135° C.—*Boil.* 245–250° C.

## Acid Tricarballic Merck (140)

By-prod. in manuf. of beet sugar.— $\text{C}_6\text{H}_8\text{O}_6$ , or,  $\text{C}_3\text{H}_5$ —(COOH) $_3$ .—Colorl., rhombic prisms.—*Sol.* W., A., E.—*Melt.* 116° C.

## Acid Trichloroacetic Merck.—Pure, cryst. (5)

Fr. glacial acetic acid, by act. chlorine & sunlight; by oxid'n of chloral.— $\text{C}_2\text{HCl}_3\text{O}_2$ , or,  $\text{CCl}_3$ —(COOH).—Deliq., colorl. cryst.; pung., suffoc. odor; caustic.—*Sol.*, freely in W., A., E.—*Melt.* 52–55° C.—*Boil.* 195° C.—Eschar.; Astring.; Hemostat. Best remedy for removing warts and similar growths, particularly from the nose and throat.—*Uses*: Vener. & cutan. warts, papillomata, vascular nevi, pigment patches, corns, nose-bleed, obstinate gleet, gonorr., nasopharyng. affect., & indol. ulc.; sensit. urine-albumin test (in substc. or 33% solut.).—*Appl.*, eschar. for corns, warts, etc., pure, or in conc. solut.; astring. & hemost., 1–3% solut.—*Caut.* Keep in glass-stp. bot.; solutions decompose.

## Acid Trichlorobutyric Merck (80)

Fr. butylchloral, by fum. nitric acid.— $\text{C}_4\text{H}_5\text{Cl}_3\text{O}_2$ , or,  $\text{CH}_3\text{CHCl}_2\text{CCl}_2\text{COOH}$ .—Colorl. need.—*Sol.*, sl. in W.—*Melt.*, above 60° C.—*Boil.* 235–238° C.

## Acid Trichlorolactic Merck (30)

Fr. chloral hydrocyanate, by conc. hydrochloric acid.— $\text{C}_3\text{H}_3\text{Cl}_3\text{O}_3$ , or,  $\text{CCl}_3\text{CH}(\text{OH})\text{COOH}$ .—

Syr. liq., or thin cryst. mass.—*Sol.* E.—*Melt.* 105–110° C.

## Acid Trichloromethylsulphurous.—see Trichloromethyl Sulphite

Acid Tricyjanic.—see Acid Cyanuric

Acid Trihydroxybenzoic } —see Acid Gallic  
Acid Trioxybenzoic. }

## Acid Tropic Merck (600)

(Alphaphenylbetahydroxypropionic, Isotropic, or Phenylhydraerylic, Acid).—Fr. atropine, by baryta water.— $\text{C}_9\text{H}_{10}\text{O}_3$ , or,  $\text{C}_6\text{H}_5\text{CH}(\text{CH}_2\text{OH})\text{COOH}$ .—Wh. cryst.—*Sol.* A., E., & hot W.—*Melt.* 117–118° C.

## Acid Truxillic (Alpha-) Merck (400)

(Alphadietinnamic, or Gammaisatropic, Acid).—Formed w. betatruxilic acid fr. isatropylcocaine, by boil., w. dil. HCl.— $\text{C}_7\text{H}_{10}\text{O}_4$ .—Wh. need.—*Sol.* A.; hot acetic acid.—*Melt.* 274° C.

Acid Tuncnolsulphonic.—see Tumenol Powder

## Acid Tungstic Merck (4)

(Wolframic, or Orthotungstic, Acid).—Fr. tungstates, by hot mineral acid.— $\text{H}_2\text{WO}_4$ . $\text{WO}_3$ , or,  $\text{W}_2\text{O}_5(\text{OH})_2$ .—Yellow powd.—*Sol.*, hydrofluoric acid, and alkalis.—*Uses*: Mordant in dyeing w. aniline colors.

do. Merck.—Highest Purity (7)

## (Acid) Tungstic Anhydride

(Tungsten Trioxide; so-called “Anhydrous Wolframic Acid”).—By burning powd. tungsten in oxygen.— $\text{WO}_3$ .—Heavy, canary-yellow powd.; orange-colored if hot.

## Acid Ulmic Merck (40)

(Ulmic Acid).—Fr. decomp. veget. matter.— $\text{C}_{10}\text{H}_{18}\text{O}_{13}$ (?).—Brown, amorph. mass.—*Sol.*, in alk. solut.

Acid Umbellic.—see Acid Anisic

## Acid Undecylenic Merck (60)

$\text{CH}_2\text{CH}(\text{CH}_2)_9\text{COOH}$ .—Sm. cryst.; odor of caproic acid.—*Sol.* A.—*Melt.* 25° C.—*Boil.* 212° C.

Acid Uranic.—see Uranium Oxide, Red

Acid Ureous.—see Xanthine

## Acid Uric Merck.—Pure (12)

(Lithic Acid; Uric Oxide).—Fr. urine or bird excrement.— $\text{C}_5\text{H}_4\text{N}_4\text{O}_6$ , or,  $\text{CO}(\text{NH})_2\text{CO}_2\text{CO}_2\text{CO}(\text{NH})_2$ .—Wh. cryst.—*Sol.*, hot conc. sulphuric acid; G.; v. sl. in W.; insol. A., E.—Decomp. by heat without fus.

Acid Uric.—see Acid Racemic

Acid Valeric Anhydrous, Inactive, or Iso.—see Acid Valeric, Iso-

Acid Valeric Hydrous.—see Acid Valeric, Iso-, Trihydrated

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Acid Valeric, Inactive.*—see **Acid Valeric, Iso-**, from Valerian Root

**Acid Valeric (Iso-) Merck** (3)

(Monohydrated Valerianic, Primary Pantoic, Valeric, Isovaleric, Inactive Valeric, or so-called "Anhydrous" Valeric Acid; Isobutylicarboxyl).

—By oxid'g amyl alcohol, or directly fr. oil valerian.— $C_5H_{10}O_2$ , or,  $(CH_3)_2CH.CH_2.COOH$ .—Transp., colorl., oily liq.; valerian & rancid cheese odor; burn. taste.—Sp. Gr. 0.937 at 15° C.—*Sol.* 30 W.; all prop., A., E., C.—*Boil.* 175° C.—*Uses:* Nerv. affect., inst. of valerian.—*Dose* 2–10 m (0.12–0.6 Cc.) in sweet'd water.—*Max. D.* 10 m (0.6 Cc.) single; 40 m (2.6 Cc.) p. d.

**do. Merck.—From Valerian Root**

(Isopropylacetic, Isovaleric, Phocenic, Inactive Valeric, or Isopantoic Acid).—By distil. fr. root Valeriana officinalis, L., &c.— $C_5H_{10}O_2$ , or,  $(CH_3)_2CH.CH_2.COOH$ .—Oily liq.; odor of valerian & old cheese; str'ly acid taste.—Sp. Gr. 0.931 at 20° C.—*Sol. W.*—*Boil.* 173–175° C.—*Uses:* Hyst., mania, nervousn., &c.—*Dose* 4–5 m (0.25–0.3 Cc.) several t. p. d. in sweet W.

**Acid Valeric (Iso-) Trihydrated Merck** (3)

(Hydrus Valeric Acid).—Fr. amyl. alc. by oxid'n.— $C_5H_{10}O_2$  + aq.—Colorl., oily liq.; bitter odor; bitter, burn. taste.—Sp. Gr. 0.935–0.950.—*Sol.* W., A., E.—*Boil.* 165° C.—Nerv.

**Acid Valeric (Normal) Merck** (170)

(Normal Propylacetic Acid).—Occurs in crude wood-vinegar.— $CH_3(CH_2)_2COOH$ .—Clear liquid; odor of butyric acid.—Sp. Gr. 0.9562 (Zander).—*Boil.* 186° C.

**(Acid) Vanadic Anhydride Merck** (60)

(Vanadium Pentoxide).— $V_2O_5$ .—Brown powd.—*Sol.*, mineral acids, and w. part. reduct. in alkalis.—*Uses:* *Medic.*, in diseases due to defective metabolism, and chiefly in tubercu-  
losis.—*Techn.*, in photography, as developer.

**do. Merck.—Fused** (320)

Radiating-crystalline, brown pieces w. violet reflection.

**do. Merck.—Technical** (32)

Brown powd.—*Sol.*, acids and alkalis.—*Uses:* In form of its salts (ammonium) and chloride as mordants in dyeing and printing fabrics.

**Acid Vanillic Merck** (80)

(Methylprotocatechuic, or Vanillinic, Acid).—Fr. vanillin, by oxidation.— $C_8H_8O_4$ , or,  $C_6H_3(OH).OCH_3.COOH$ .—Colorl., cryst. needles.—*Sol.* W., A., E.—*Melt.* 207° C.

**Acid Veratric Merck.—Cryst.** (800)

(Dimethylprotocatechuic Acid).—Fr. seeds of Asargrea officinalis, Lindl. (Sabadilla).— $C_9H_{10}O_4$ , or,  $C_6H_3(OCH_3)_2.COOH$ .—Colorl. or yellowish cryst.—*Sol.* A., E.; v. sl. W.—*Melt.* 182° C.

*Acid Violet*—see **Methyl Violet 7 B**

*Acid Wolframic.*—see **Acid Tungstic**

*Acid Yellow D.*—see **Diphenylamine Orange; Tropæoline 00**

*Acid Yellow S.*—see **Naphthol Yellow S**

*Acidol = Betaine Hydrochloride.*—see **Betaine Hydrochloride**

*Acme Yellow.*—see **Yellow T**

**Acocanthera**

Wood of Acocanthera Deflersii, Schweinfurth. Apocynaceæ.—*Habit.*: East Africa; Erythrea; Yemen.—*Constit.*: Ouabain (amorph. glucoside).—*Uses:* As arrow poison by the aborigines.

**Accon** (60)

(Dipara-anisylmonophenetylguanidine Hydrochloride).— $2(NH_2C_6H_4O(CH_3)) : C : NC_6H_4O(C_2H_5).HCl$ .—Wh., cryst. powd.—*Sol.* W.—*Melt.* 176° C.—*Uses:* Anesthetic, recommended for infiltration-anesthesia by Schleich in 1:1000 solut. containing 0.8% sod. chloride.—*Appl.*, in 1% solut. in subconjunctival inject.; in veterin. practice, as 2% aqu. solut. subcut. as local anæsthet.—*Caut.* Keep fr. light.

**Aconite.—U. S. P.**

(Aconite Root; Monkshood; Wolfsbane; Friar's Cowl; Mouse-bane).—Dried tuber (lvs. also, though not official in U. S. P.) of Aconitum Napellus, L. Ranunculaceæ.—*Habit.*: Mountainous regions of Europe, Asia, and North America.—*Etymol.*: Fr. Grk. "a" without, and "konis," dust, dirt, i. e. the plant grows on stony ground, "en akonais." "Napellus" fr. Lat. "napus," turnip, referring to the shape of the root.—*Constit.*: Aconitine (cryst.),  $C_{34}H_{47}NO_{11}$ ; acanine,  $C_{25}H_{41}NO_9$ ; napelline (isoaconitine; pseudaconitine),  $C_{33}H_{45}NO_{12}$ ; pieraconitine,  $C_{32}H_{45}NO_{10}$ ; aconitic acid,  $H_2C_6H_4O_6$ ; resin; fat; sugar.—*Sedat.*: Anodyne; Diaphor.; Antipyret.; Myotic.—*Uses:* Chiefly in rheumatism, gout, and neuralgias.—*Doses: Tuber:* 1–2 grains (0.06–0.12 Gm.). *Alcoh. extr.*,  $1/6$ – $1/2$  grain (0.01–0.03 Gm.); *Max. D.*  $1\frac{1}{2}$  grains (0.1 Gm.) single; 6 grains (0.36 Gm.) daily. *Fld. extr.*,  $1/4$ –1 m (0.015–0.06 Cc.); *Max. D.*, 2 m (0.12 Cc.) single; 10 m (0.6 Cc.) daily. *Tinct.*, 3–10 m (0.2–0.6 Cc.).—*Lvs.*: 1–3 grains (0.06–0.2 Gm.).—*Alcoh. extr.*,  $1/2$ –2 grains (0.03–0.12 Gm.); *Max. D.* 2 grains (0.12 Gm.) single; 20 grains (1.3 Gm.) daily.—*Fla. extr.*,  $1/2$ –3 m (0.03–0.2 Cc.); *Max. D.* 3 m (0.2 Cc.) single; 15 m (1 Cc.) daily.—*Antid.*, heart stimulants (whisky, ether, alcohol, ammonia); digitalis; tannin; artificial respir.; amyl nitrite; atropine; strychnine (hypod.).

**Aconitin (Resinoid)** (20)

Mixed alkaloids & o. prin. fr. Aconitum Napellus, L.—Brown powd. or resin-like mass.—*Sol.* A.—*Uses:* By the Eclectics, for fever & to relieve pain.—*Dose*  $1/20$ – $1/12$  grain (0.003–0.005 Gm.),

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

3 or 4 t. p. d.—*Caut.* Do not confound w. alkaloid aconitine. The dose prescribed should be carefully scrutinized.

**Aconitine (Alkaloid) Potent Merck.—Cryst.** (225  
(Acetylbenzoylaconine; Napelline; not "Napelline" of Dunstan & Ince).—Fr. root genus Aconitum, us'y Aconitum Napellus, L.— $C_{34}H_{47}NO_{11}$  (Freund & Beck);  $C_{34}H_{45}NO_{12}$  (Dunstan & Ince);  $C_{33}H_{43}NO_{11}$  (Ehrenberg, Purfurst).—Identical with "Duquesnel's" aconitine.—White cryst.; feebly bitter taste; intensely poisonous.—*Sol.* A., E., C.—*Melt.* abt. 190° C.—Anti-neural; Diur.; Sud.; Anesth. (extern.).—*Uses:* Intern., neural, acute or chronic rheumat., gout, pleur., pneum., pericard., tonsil., nerv. toothache, &c.—*Extern.*, as oint. & linim. in rheumat. & o. pains. Never on abraded surfaces. Danger of absorption!—*Dose*  $1/600$ – $1/300$  grain (0.0001–0.0003 Gm.) several t. p. d. in pill or solut., with caution.—*Max. D.*  $1/60$  grain (0.001 Gm.) single;  $1/30$  grain (0.003 Gm.) p. day.—*Appl.*, 1:2000–500 pts. lard, not on abraded surf.—*Antid.*, small repeated doses of stimulants; artif. respiration. Atropine & digitalis sugg., but action doubtful; 3 grains (0.2 Gm.) tannin every  $1/2$  hr.; chlorof. inhalat. in spasms.—*Incomp.* *Physiol.*, atropine, morphine, digitalis, ammonia; *Chem.*, alkalies, tannin, merc. salts.—*Caut.* Highly poisonous! 10 times as toxic as the "mild, amorph." below!

*Note.*—This is the highly purified & potent article of the U. S. P.; the prescriber can fully rely on it to afford prompt & satisfactory effects.

**Aconitine Mild Merck.—Amorph.** (225  
Mixt. of amorph. alkaloids fr. Aconitum Napellus, L.—Yellowish-wh., amorph. powd.—*Sol.* A., E., C.—Antineur.; Diur.; Sud.—*Uses:* As aconitine, potent, cryst., above, but in larger doses; less poisonous.—*Dose*  $1/60$ – $1/30$  grain (0.001–0.003 Gm.), v. carefully increased.—*Max. D.*  $1/15$  grain (0.004 Gm.) single.—*Appl.*, 0.25–2% oint. or solut.—*Antid.*, as aconitine, potent, cryst. above.

**Aconitine Merck fr. Aconitum Ferox** (1200  
(Pseudo-aconitine; Nepaul, or British, Aconitine; Veratroylaconine).—Fr. roots Aconitum ferox, Wall. (Indian aconite).— $C_{36}H_{49}NO_{12}$  (Wright).—Yellowish, amorph. powd.—*Sol.* A., E., C.—*Uses:* Extern., in neural.—*Intern.*, twice as powerful as aconitine, potent, cryst.—*Dose*  $1/1200$ – $1/400$  grain (0.00005–0.00015 Gm.).—*Appl.* Extern., 0.1–0.15:10 of alcohol or fat.—*Caut.*: Never put on sores or muc. memb.!

**Aconitine Merck from Japanese Aconite.—Cryst., or amorph.** (600  
(Japaconitine).—Fr. Japanese Aconite root.—Wh. cryst. (or amorph. powd.).— $C_{34}H_{49}NO_{11}$ .—*Sol.* A., E.—*Uses:* As of aconitine, potent, cryst., but much more poison. & irritating than cryst. aconitine (Langgaard).—*Dose*  $1/5$  less than of aconitine, potent, cryst.—*Caut.* Highly poisonous! Great care!

**Aconitine Arsenate Merck.—Cryst.** (225  
Fr. cryst. aconitine, fr. Aconitum Napellus, L.—Wh. cryst.—*Sol.* W., A.—*Dose:* As of aconitine, potent, cryst.

**do. Merck.—Amorph.** (225  
Fr. amorph. aconitine, fr. Aconitum Napellus, L.—Yellowish-wh. powd.—*Sol.* W., A.—*Dose:* As of aconitine, mild, amorph.

**Aconitine Hydrobromide Merck.—Cryst.** (225  
(Aconitine Hydrobromate).—Fr. cryst. aconitine fr. Aconitum Napellus, L.— $C_{34}H_{47}NO_{11}.HBr + 2 1/2 H_2O$ .—Wh. to yellowish cryst.—*Sol.* W., A.—*Melt.* 163° C.—*Dose:* As of aconitine, potent, cryst.

**do. Merck.—Amorph.** (225  
Fr. amorph. aconitine fr. Aconitum Napellus, L.—Yellowish-wh., amorph. powd.—*Sol.* W., A.—*Dose:* As of aconitine, mild, amorph.

**Aconitine Hydrochloride Merck.—Cryst.** (225  
(Aconitine Hydrochlorate, or Chlorhydrate).—Fr. cryst. aconitine fr. Aconitum Napellus, L.— $C_{34}H_{47}NO_{11}.HCl + 3H_2O$ .—Wh. cryst.—*Sol.* W., A.—*Dose:* As of aconitine, potent, cryst.

**do. Merck.—Amorph.** (225  
Fr. amorph. aconitine fr. Aconitum Napellus, L.—Yellowish, amorph. powd.—*Sol.* W., A.—*Dose:* As of aconitine, mild, amorph.

**Aconitine Nitrate Merck.—Cryst.** (225  
Fr. cryst. aconitine fr. Aconitum Napellus, L.— $C_{34}H_{47}NO_{11}.HNO_3$ .—Wh. cryst.—*Sol.* A.; sl. W.; v. in W. cont'g carbon dioxide.—*Uses:* Most used of all aconitine salts. Espec. in cephalal., trigem. neural., & ac. rheumat.—*Dose:* As of aconitine, potent, cryst.—*Caut.* Highly poisonous!

**do. Merck.—Amorph.** (225  
Fr. amorph. aconitine fr. Aconitum Napellus, L.—Yellowish powd.—*Sol.* W., A.—*Dose:* As of aconitine, mild, amorph.

**Aconitine Oleate.—N. F.**  
Fr. 2 pts. cryst. aconitine & 98 pts. oleic acid.—Yellowish-brown to dark-brown liq.—*Sol.* E.—*Uses:* Extern., painful joints & neural.—*Caut.* Use reservedly, & not on abraded surfaces.

**Aconitine Phosphate Merck.—Cryst.** (225  
Fr. cryst. aconitine fr. Aconitum Napellus, L.—Wh., cryst. powd.—*Sol.* W., A.—*Dose:* As of aconitine, potent, cryst.

**Aconitine Salicylate Merck.—Cryst.** (225  
Fr. cryst. aconitine fr. Aconitum Napellus, L.—Wh., cryst. powd.—*Sol.* W., A.—*Dose:* As of aconitine, potent, cryst.

**do. Merck.—Amorph.** (225  
Fr. amorph. aconitine fr. Aconitum Napellus, L.—Yellowish-wh., amorph. powd.—*Sol.* W., A.—*Dose:* As of aconitine, mild, amorph.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Aconitine Sulphate Merck.—Cryst.** (225)

Fr. cryst. aconitine fr. *Aconitum Napellus*, L.— $(C_{34}H_{47}NO_{11})_2 \cdot H_2SO_4$ .—Wh. cryst.—*Sol.* W., A.—*Dose*: As of aconitine, potent, cryst. Somet. subcutaneous.

**do. Merck.—Amorph.** (225)

Fr. amorph. aconitine fr. *Aconitum Napellus*, L.—Yellowish, amorph. powd.—*Sol.* W. A.—*Dose*: As of aconitine, mild, amorph.

**Aconitum Ferox**

(Indian Aconite; Bish; Visha; Bishma; Bikh-roth).—Tuber of *Aconitum Ferox*, Wallich. Ranunculaceæ.—*Habit.*: India; Nepaul; Himalaya Mountains.—*Etymol.*: See Aconite. "Ferox," Lat. wild, fierce.—*Constit.*: Pseudoaconitine (feraconitine),  $C_{36}H_{49}NO_{12}$ .—*Uses*: Most powerful of all the aconites, and is used like *A. Napellus*.—*Techn.*, as source of pseudoaconitine.

**Aconitum Lycoctonum**

(Great Yellow Wolfsbane; Badger's Bane; Beast Bane).—Tubers of *Aconitum Lycoctonum*, L. Ranunculaceæ.—*Habit.*: Europe; Northern Asia.—*Etymol.*: See Aconite. "Lycoctonum" fr. the Grk. "lykos," wolf, and "kteinein," to kill, i.e. the plant was used to kill wolves.—*Constit.*: Lycaconitine,  $C_{27}H_{34}N_2O_6 \cdot 2H_2O$ ; myoconitine,  $C_{27}H_{30}N_2O_8 \cdot 5H_2O$ ; acolyetine(?).—*Uses*: As source of alkaloids just mentioned.

**Acopyrine**

(Antipyrine Salicylacetate or Acetylsalicylate; Acetopyrine).—Wh., cryst. powd.—*Sol.*, diffc. cold W.; 20 boil. W.; A., C.; diffc. E.—*Melt.* 63–64° C.—Antipyr.; Antirheum.; Sedative.—*Uses*: Headache, neuralgia, sciatica, etc.—*Dose* 5–10 grains (0.3–0.6 Gm.).

**Acorn**

(Oak Acorns; Jove's Nuts; Glandes Quercus).—Acorns fr. *Quercus Robur*, L. (*Q. pedunculata*, Ehrh.). Cupuliferæ.—*Habit.*: Europe; Western Asia.—*Etymol.*: Fr. Celtic "quer," handsome, & "cuez," tree; and Lat. "robur," strength, vigor.—*Constit.*: Quercite,  $C_6H_7(OH)_5$ ; fixed oil; tannin.—Tonic; Astring.—*Uses*: In roasted form as surrogate for coffee, and as an astring. nutrient; formerly used to check hemorrhage, & in scrofula & indigestion.

*Acorn Sugar*.—see **Quercit**

*Acorus*.—see **Calamus**

**Acridine Merck** (140)

Fr. gas-tar oils.— $C_{13}H_9N$ , or,  $C_6H_4 \cdot \overline{CH} \cdot C_6H_4 \cdot N$ .—Colorl. cryst.; pung. odor; burn., acrid taste; irritating to skin & muc. memb.—*Sol.* A., E., B., & carbon disulph.; sl. W.—*Melt.* 107–111° C.—*Subl.*, fr. 100° C. upward.—*Boil.* 360° C.

*Actra*.—see **Cimicifuga**

**Actol**

(26)

(Silver Lactate).— $AgC_3H_5O_3 + H_2O$ .—Wh. powd.—*Sol.* W. & albuminous liquids 1:15.—

*Uses*: Antisep. in surgery (introduced by Credé); severe infect., as by anthrax, erysipelas, etc.—*Appl.*, 1:4000–8000 solut. as wash for cavities; in 1:100–2000 solut. for making silver thread and drains; 1:500 solut. in dentistry as wash for root abscesses; 1:1000 solut. in veterinary medicine.—See also Silver Lactate.

*Adderwort*.—see **Bistorta**

*Adeps*.—see **Lard**

*Adeps Lana*.—see **Lanum**

**Adhatoda**

(Malabar Nut; Arusa; Adulsa; Vasaca; Adhatodai).—Leaves of *Adhatoda Vasica*, Nees. Acanthaceæ.—*Habit.*: East India.—*Etymol.*: "Adhatoda" is the Ceylonese name of the plant, & signifies "abortifacient," i.e., the seeds are forcibly expelled from the capsules. "Vasica" fr. the Sanskrit "vasaca".—*Constit.*: Adhatolic Acid; vasicine.—Antispasm. and Expector.—*Uses*: Respiratory diseases; in asthma like stramonium (by smoking); coughs, colds, phthisis, cholera, and diphth.; also as insecticide.—*Dose*: Tinct. 30–60 ℥ (2–4 Cc.); fld. extr., 15–60 ℥ (1–4 Cc.).

**Adiantum**

(Maidenhair).—Whole plant of *Adiantum capillus-Veneris*, L. Polypodiaceæ.—*Habit.*: Mediterranean region; natur. in Southern U. S.—*Etymol.*: Fr. Grk. "a" without, and "diainein" to make wet, i.e., the plant is not easily made wet. "Capillus-veneris," Venus' hair, referring to the fineness of the pinnæ.—*Constit.*: Volat. oil; bitter principle; tannin.—Refrig.; Expector.: Tonic; Subastring.—*Uses*: In syrup form and tea in pectoral affections.

**Adonidin Merck**

(85)

(Adonin; Adonine).—Glucoside fr. root of *Adonis vernalis*, L., & o. spec. *Adonis*.—Light-brown., v. hygros., readily conglutinating, odorl. powd.; intens. bitter.—*Sol.* W., A., fusel oil; insol. E., C.—Cardiac Stimulant; mild Diur.—*Uses*: Heart dis., inst. of digitalis; also in nicotine intoxication, and in chron. diffuse nephritis. Espec. useful in mitral & aortic regurgit. & to relieve precordial pain & dyspnea.—*Dose*  $\frac{1}{15}$ – $\frac{1}{4}$  grain (0.004–0.015 Gm.) 4 t. p. d., in pill, or solut. in chlorof. water w. amm. carbonate.—*Max. D.*  $\frac{1}{2}$  grain (0.03 Gm.) single;  $\frac{1}{2}$  grains (0.1 Gm.) p. d.—*Inj.* 1–2 Cc. subcut. of 0.5% solut.—*Antid.*, emetics, stomach pump, tannin, nitroglycerin, morphine, alcoholic stimulants, camphor, mustard cataplasms.—*Caut.* Keep well stoppered.

*Adonin*.—see **Adonidin**

**Adonis Æstivalis**

(Pheasant's Eye).—Herb of *Adonis æstivalis*, L. Ranunculaceæ.—*Habit.*: Europe; Asia.—*Etymol.*: Fr. "Adonis" the Grk. god, from whose blood the plant is fabled to have sprung, according

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



## MERCK'S 1907 INDEX

to Ovid.—Alm. glabrous annual, with bitter, acid taste, but scarcely any odor.—*Constit.*: Adonidin.—*Cardiac Tonic*; *Diuret.*—*Uses*. Chiefly as an anti-fat; also in valvular insufficiency.—*Dose*: Tinct., 10-30 ℥ (0.6-2 Ce.) after meals in lithia water.

### Adonis Vernalis

(False Hellebore; Vernal Pheasant's Eye; Bird's Eye).—Herb of *Adonis vernalis*, L. Ranunculaceae.—*Habit*: Europe; Asia; Labrador.—*Etymol.*: See *Adonis aestivalis*.—*Constit.*: Adonidin (adonin); acetic acid; adonite,  $C_6H_7(OH)_5$ .—*Cardiac Stim.* (like digitalis); *Diuret.*—*Uses*: Dropsy.—*Doses*: 4 fl. dr. (15 Ce.) of infus. (4-8-200); *Max. D.* of powd., 8 grains (0.5 Gm.) single; 24 grains (1.5 Gm.) daily.—*Aqu.* and *alcohol.* extr.,  $\frac{1}{10}$ -1 grain (0.006-0.06 Gm.); *Max. D.* 15 grains (1 Gm.) daily.—*Fld. extr.*,  $\frac{1}{2}$ -5 ℥ (0.03-0.3 Ce.) sev. t. p. d.—*Tinct.*, 3-10 ℥ (0.2-0.6 Ce.).—*Antid.*, stomach pump; emetics; tannin; alcohol; opium; brandy.

### Adonite Merck.—Cryst.

(200

Sugar fr. *Adonis vernalis*, L.— $C_6H_7(OH)_5$ .—Wh. cryst.—*Sol.* W., and dil. A.—*Melt.* 102° C.

### Adrenal

Cryst. base fr. suprarenal capsules.— $C_{10}H_{15}NO_3$ .—*Sol.*, diffie W.; the salts are eas. sol.—*Vasoconstrictor.*—*Uses*: Hemor., inflam. of mucous surfaces.—*Appl.* 1:1000-10,000 solut.—*Dose* 5-10 ℥ (0.3-0.6 Ce.) of 1:1000 solut. 3 t. p. d.

### Adrenalin

(7650

Blood-pressure-raising principle of suprarenal gland.—*Hemostatic*; *Astringent.*—*Uses*: 1:1000 solut. (as chloride) in hay fever, inflammation of tonsils, larynx, &c., & in conjunctivitis, iritis, urethritis, &c.; in minor surgic. operations to prevent bleeding, &c.—*Dose* 5-30 ℥ (0.3-2 Ce.) of 1:1000 solut. as cardiac stimulant and vasoconstrictor.

### Adrin

(6500

(Epinephrin Hydrate).— $2C_{10}H_{13}NO_3 \cdot H_2O$ .—Active principle of suprarenal gland.—*Hemostatic*; *Astringent.*—*Uses*: Minor surgic. operations to prevent bleeding; conjunctivitis, urethritis, etc.

*Adruc.*—see *Cyperus*

*Aegle.*—see *Bael Fruit*

*Aescorcin.*—see *Escorcin*

*Aesculetin.*—see *Esculetin*

*Aesculin.*—see *Esculin*

### Æsculus Glabra

(Ohio Buckeye; Fetid Buckeye; American Horse-chestnut).—Bark of *Æsculus glabra*, Willd. Hippocastanaceae.—*Habit.*: U. S. (Michigan to Alabama; west to Ind. Territ.).—*Etymol.*: "Æsculu" is the Lat. name for the Italian oak. "Glabra," fr. Lat. "glaber," smooth,

hairless (referring to the leaves).—*Tonic*; *Astring.*; *Antiperiod.*—*Uses*: Diarrh., and in malar. affect.—*Dose*. *Fld. extr.*, 10-20 ℥ (0.6-1.3 Ce.).

### Æsculus Hippocastanum

(Hippocastanum, Horse-chestnut).—Bark and flower of *Æsculus Hippocastanum*, L. Hippocastanaceae.—*Habit.*: Asia (Persia and Northern India); cultivated in Europe and U. S. *Etymol.*: Fr. Grk. "hippos," horse, and "kastanos," chestnut tree, derived from the name of the Thessalian city, Kastanon. "Æsculus" is the Lat. name for the Italian oak.—*Extern.*, grayish to grayish-brown, inner surface whitish and smooth; internally brownish; odorl; rough, bitter taste; tough, fibrous fract.—*Constit.*: Esculin,  $C_{15}H_{16}O_8 + \frac{1}{2}H_2O$ ; esculetin,  $C_6H_6O_4$ ; tannin. Flowers contain quercitrin.—*Febrif.*; *Astring.*; *Tonic*; *Narcotic.*—*Uses*: *Intern.*, in interm. and remit. fevers, diarrh., hemorrhoids.—*Extern.*, in rheumat., neuralg., prurigo, frostbite, etc.—*Dose* 30-120 grains (2-8 Gm.) in powd.—*Fld. extr.*, 20-60 ℥ (1.3-4 Ce.).—*Fld. extr. of seeds*, 10-30 ℥ (0.6-2 Ce.).

*Athacol* = *Guaiacol-ethyl.*—see *Guaethol*

### Agar-Agar

(2

(Japan Agar; Japan, Bengal, Ceylon, or Chinese Isinglass or Gelatin; Layan-Carang).—Thallus of various sp. of Gelidium and Eucheuma, Rhodophyceae (Algæ); and Sphaerococcus, Gigartineae.—*Habit.*: Pacific and Indian Oceans, and Japan Sea.—*Etymol.*: "Agar-agar" is the East-Indian name for the sea-weed.—Long, transp. strips resembling goose-quill pith; also quadrang. transl. cakes of abt. 10 Gm. each.—*Constit.*: Pectin; gelose (pararabin [ $C_6H_{10}O_5$ ]).—*Sol.*, hot W. to a viscid, tastel., odorl. jelly.—*Uses*: *Medic.*, in pectoral affect.; in glye. jelly for chapped hands, &c.; and in surg. protheses.—*Techn.*, as nutrient media for bacterial cultures; sizing for silks; adhesives; and substitute for gelatin, isinglass, etc., in confectionery.

### Agaric

(Larch Agaric; White Agaric; Male Agaric; Purging Agaric; Amadou; German Tinder).—Fungus, Polyporus officinalis, Fries, Hymenomyces (Boletus Laricis, Jacquin; B. purgans, Persoon).—*Habit.*: European and Asiatic Russia.—*Etymol.*: "Agaricus," from the Greek "Agaria," a Sarmatian province, where this agaric was frequently found.—Light, whitish, reddish-gray, or yellowish, spongy, friable, more or less hoof-shaped masses of fungus of varying size; feeble odor, and bitter, acid, yet somewh. sweetish taste.—*Constit.*: Agaric acid (agaricin)  $C_{16}H_{30}O_8 + H_2O$ ; agaricol; phytosterin; ricinoleic acid; cetyl alcohol; resin.—*Uses*: *Medic.*, purg. and antihidr. in colliquative night-sweats of phthisis.—*Techn.*,

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S on your orders**

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



in manuf. of liquors.—*Dose* 30–60 grains (2–4 Gm.) as purg.; larger doses emetic; 3–10 grains (0.2–0.6 Gm.) as antihidrotic.

# Agaricin Merck (18)

(Laricin).—Active constit. of *Polyporus officinalis*, Fries.—Yellowish powd.—*Sol.*, hot A., hot W., & alkalies.—Efficient Antihidr.—*Uses*: In phthisical & other enervating night-sweats, & sweating fr. antifebrin, antipyrine, exalgin, resoreinol, phenacetin, & salicylates.—*Dose*  $\frac{1}{4}$ –1 grain (0.015–0.06 Gm.).—*Max. D.*  $1\frac{1}{2}$  grains (0.1 Gm.).

# Agathin (65)

(Salicylalphamethylphenylhydrazine). — Fr. alphasalicylphenylhydrazine by salicylic aldehyde.— $C_6H_5.N(CH_3).N:CH.C_6H_4.OH$ . — Yellowish cryst.—*Sol.* A., E., B.; insol. W.—*Melt.*  $74^\circ C$ .—Antineural.; Antirheum.—*Uses*: In neural. & rheumat.—*Dose* 2–8 grains (0.12–0.5 Gm.) 2 or 3 t. p. d.

*Agnin.* } = *Adeps Lanæ*.—see **Lanum, Anhydrous**  
*Agnolin.* }

# Agrimony

(Cocklebur; Stickwort).—Herb of *Agrimonia Eupatorium*, L. Rosaceæ.—*Habit.*: Europe.—*Etymol.*: Fr. Grk. “agros,” field, and “monos,” alone, i.e., where it grows.—*Constit.*: Volat. oil; bitter principle; tannin.—Mild Tonic; Alterative; Astring.—*Uses*: In diseases of liver and stomach. Also in gargles, cutaneous affections, dropsy, gonorrhea, sore throat, fever, diarrhea, and hemorrhages.—*Dose* 60–120 grains (4–8 Gm.).—*Fld. extr.* 30–60  $\eta$  (2–4 Cc.).

*Agropyrum Repens*.—see **Triticum**

# Agurin (34)

(Theobromine-Sodium & Sodium Acetate). —  $C_7H_7N_4O_2Na + NaC_2H_3O_2$ .—Wh. hygrosc. powd.; distinct alk. reaction.—*Sol.*, easily W.; sl. cold A., more eas. hot A.—Diuret., without action on heart.—*Uses*: Dropsy.—*Dose* 5–15 grains (0.3–1 Gm.) sev. t. p. d.

# Ailanthus

(Tree of Heaven; Chinese Sumach; Ailanto).—Bark of *Ailanthus glandulosa*, Desf. Simarubaceæ.—*Habit.*: China; cultiv. in U. S. and Europe as shade tree.—*Etymol.*: Fr. Chinese “ailanto,” tree of heaven.—*Constit.*: Resin; volat. oil; tannin; albumin; quassini(?).—Purg. & Vermif.—*Uses*: Dysentery.—*Dose*: *Fld. extr.*, 10–30  $\eta$  (0.6–2 Cc.).

*Ailanto*.—see **Ailanthus**

# Airol (20)

(Bismuth Oxyiodogallate).— $C_6H_2(OH)_4COO.BiI_2$ .—Grayish-green, bulky powd.—*Sol.*, alk. solut.; dil. mineral acids. Decomp. by W.—Antiseptic.—*Uses*: *Extern.*, dust-powd. on wounds, ulc., chancres, &c.; also oint.

*Ajakol* = *Guaiaacol-ethyl*.—see **Guaethol**

*Ajava* or *Ajouan*.—see **Ajowan**

# Ajowan

(Ajava; Ajouan).—Seed of *Carum copticum*, Benth. (Ptychotis Coptica, D. C.) Umbelliferæ.—*Habit.*: Mediterranean region to India.—*Etymol.*: “Ajowan” is the Hindustani name for the plant.—*Constit.*: Thymol.—Carmin.; Antiseip.; Astring.—*Uses*: Cholera and dipso-mania.—*Dose*: *Fld. extr.*, 10–30  $\eta$  (0.6–2 Cc.).

*Aker Tuba*.—see **Derris**

# Alanin (Alpha-) Merck (70)

(Propionic Glycoecoll; Alpha-aminopropionic Acid).—Fr. aldehyde-ammonia, by hydrocyanic w. hydrochloric acids.— $C_3H_7NO_2$ , or,  $CH_3-CH(NH_2)COOH$ .—Wh. cryst.—*Sol.* A., W.

*Alanin Mercury*.—see **Mercury Aminopropionate**

*Alant Camphor*.—see **Helenin**

*Alant Starch*.—see **Inulin, White**

*Alantin*.—see **Inulin, Kiliani**

# Alantol Merck (160)

(Pinguin).—Fr. root *Inula Helenium*, L. (Elecampane), by distil. w. W.— $C_{10}H_{16}O$ .—Yellow to brownish-yellow liq.; odor & taste like that of peppermint.—*Sol.* A., C., E.—*Boil.*  $200^\circ C$ .—Intern. Antiseip.; Anticatar.—*Uses*: Inst. of turpentine, in pulmon. tuberculosis.—*Dose*  $\frac{1}{6}$   $\eta$  (0.01 Cc.) 10 t. p. d., in pill, powder or aleoh. solut.

*Alantolactone*.—see **Helenin**

*Alapurin* = *Adeps Lanæ*.—see **Lanum, Anhydrous**

# Albargin (22)

(Gelatoze-Silver).—Fr. silver nitrate & gelatose obtained fr. gelatin by dialysis.—Voluminous, light-yellow powd.; 15% Ag.—*Sol.*, v. eas. W.—Astringent; Bactericide; Antiseptic.—*Uses*: Gonorrhea, ophthalmoblenorrhoea, diseases of large intestines, etc.—*Appl.* 0.1–0.2% solut.; in intestin. affect., enemas of 0.16% solut.; in eye diseases, 10–20% solut. w. 20% glycerin.—*Caut.* Keep in amber bot.

# Alboferrin

Iron-albumin comp.; 0.68% Fe; 0.324 P; 90.14% albumin.—Light-brown, alm. taste. & odorl. powd.—*Sol.*, eas. W.—Hematinic.

# Albumin Merck.—Fr. Blood.—Scales (2)

Fr. blood serum.—Brownish-yellow scales; trace of ash.—*Sol.* W.—*Uses*: Techn. in dyeing & in leather industry.—*Caut.* Keep dry.

do. Merck.—Fr. Blood.—Powder (2)

do. Merck.—Fr. Blood.—Highest Purity (8)

do. Merck.—Fr. Eggs.—Scales, odorless (2)

(Dried White of Egg).—Pale yellow, transl. scales.—*Sol.*, in S W., yielding easily filterable solut.; easier in pres. of alk. salt, and sat. solut.  $NaCl + MgSO_4$ .—*Uses*: Chiefly techn.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

for clarifying and refining liquids; manuf. of cements (with lime); in photography for manuf. albumin paper; sizing printing fabrics; leather manuf., etc.—*Incomp.*, corros. subl., alum., tannic acid, &c.—*Caut.* Keep dry.

**Albumin Merck.**—Fr. Eggs.—Impalp. powder (2 fine, yellowish-wh., amorph. powd.—*Sol.* W.—*Uses:* Techn.—*Caut.* Keep dry.

**do. Merck.**—Fr. Plants (200

(Vegetable Albumin; Alcohol-insoluble Gluten).—Proteid fr. grain.—Yellowish-wh. powd.—*Sol.* W.; insol. in 80% A.—*Uses:* Mord.

**Albumin, Iodized.**—see Iodine Albuminate

**Alcannin.**—see Extract Alkanet

## Alchemilla

(Lady's Mantle).—Herb of *Alchemilla vulgaris*, L. Rosaceae.—*Habit.*: Europe; naturalized in U. S.—*Etymol.*: Fr. "alkemelyeh," the Arabic name of the plant.—*Constit.*: Bitter principle; tannin.—*Astring.*; Blood Purifier; Diuret.; Vulnerary.

**Alcohol Merck.**—U. S. P.—Sp. Gr., abt. 0.816 at 15.6° C., or 0.809 at 25° C. = 39° Bé. (1

(Ethyl Alcohol; Spirit Wine).— $C_2H_5.OH$ .—Fr. grain, starch or sugar, by ferment. w. *Torula cerevisiae*.—Colorl., volat., inflam. liq.; penetrat., agre. odor; burn. taste; 92.3% by wt. or 94.9% by vol. abs. A.—*Misc.*, all prop., W., E., C.—*Boil.*, abt. 78.5° C.—*Stim.*; Irrit.—*Uses:* Intern., dil., low fevers, debility fr. ac. dis., rid digestion, warm the chilled, check nausea of sea-sick, & as antidote to poisoning by carbolic acid.—*Extern.*, liniments, harden. skin, remov. desicc. epith., antisept. wash for wounds. Also techn.—*Dose* 60–240 ℥ (4–15 Ce.), in 2–6 times its volume of W.—*Antid.*, in ac. poisoning, siphon the stomach or give emetic. Maintain respiration w. atropine or belladonna, & bodily heat w. hot-water bags to hands and feet, applic. of ice to head, irritants, cold douche, inhal. of ammonia, fresh air.—*Incomp.*, acacia, albumin, bromine, chlorine, chromic acid, permanganates.—*Caut.* Do not mix suddenly w. nitric acid. Keep from flame!

**do.**—Diluted.—U. S. P.—Sp. Gr., abt. 0.937 at 15° C. = 19° Bé. (1

Cont. abt. 41.5% by wt., or abt. 48.9% by volume, abs. A.—*Uses:* Chem. & pharm.

**Alcohol Merck.**—Reagent.—95% (2

$C_2H_5.OH$ .—Clear, colorl. liq.—Sp. Gr., abt. 0.816 at 15.6° C.—Abt. 95% by vol.  $C_2H_5.OH$ .—*Boil.* 78° C.—*Misc.*, all prop. W.—Does not change color of moist. litmus paper.—*Tests:* (Res.) evap. 5 Ce. slowly—none whble.—(Fusel Oil) 10 Ce. + 5 Ce.  $H_2O$  + 1 Ce. glycerin; w. mixture saturate piece of clean, odorl. blotting paper & allow to evap. spontan.—no foreign odor.—(Aldehyde; Tannin) 10 Ce. + 5 Ce. 5% solut.

KOH—no immediate yellow color.—(Organ Impurities; Aldehyde, &c. 20 Ce. + 1 Ce. decinorm. solut.  $AgNO_3$ —not more than faint opalescence, & not more than faint brownish tint after 6 hrs. exposure to diffused daylight.—(Furfural) 10 Ce. + 10 drops aniline + 2 to 3 drops HCl—no pinkish-red color.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Alcohol Merck.**—Reagent.—86% (2

85.6–87.2%  $C_2H_5.OH$  by wt.—Sp. Gr. 0.830–0.834.—Conforms otherwise to requirem. of Absolute Alcohol.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Alcohol Absolute Merck.**—Sp. Gr., abt. 0.797 at 15.6° C., or 0.790 at 25° C. = 46° Bé. (2

(Ethyl Hydroxide, Anhydrous Alcohol).—Dehydr. pure alc.; not over 1% W.— $C_2H_5.O$ , or,  $C_2H_5.OH$ .—Transp., colorl., v. limpid, mobile inflam. liq.; pleas. spir. odor; burning taste.—*Misc.*, all prop. E., C., W.—*Stim.*—*Uses:* Chiefly solvent.—Absorbs W. rap. fr. air.—*Caut.* Keep well stoppered, cool, & fr. flame!

**Alcohol Absolute Merck.**—Reagent (2

$C_2H_5.OH$ .—Clear, colorl. liq.; 99–99.6%  $C_2H_5.OH$  by wt.—Sp. Gr. 0.796–0.800.—*Tests:* (Res.) evap. 50 Ce.—none.—(Fusel Oil) a: 10 Ce. + 30 Ce.  $H_2O$ —no turb. or color, & no foreign odor; b: 10 Ce. + 0.2 Ce. 15% solut. KOH, evap. to 1 Ce., & add excess dil.  $H_2SO_4$ —no odor of fusel oil; c: rub a few drops betw. hands—no unpleasant odor.—(Molasses-Alcohol) overlay 5 Ce. on 15 Ce. conc.  $H_2SO_4$ —no rose-red zone.—(Aldehyde) heat 10 Ce. + 5 drops solut.  $AgNO_3$  + 1 Ce.  $H_2O$  for 10 minutes on W.-bath (70–80° C.)—no turb. or ppt.—(Organic Impur.) 10 Ce. + 1 drop 1:1000 solut.  $KMnO_4$ —pink color should not pass into yellow within 20 minutes.—(Metals; Tannin) 10 Ce. + 1 Ce.  $NH_4OH$  (sp. gr. 0.96) or aqu.  $H_2S$ —no color.—*Uses:* Forensic analysis, &c.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Alcohol.**—Deodorized (1

(Perfumer's Alcohol; Cologne Spirits).—Com'l alc. free fr. fusel oil & purified.—Cont. 95.1% by vol. abs. A.—Colorl., limpid, inflam. liq.; pure ethylic alc. odor.—*Misc.*, all prop. A., E., C.—Sp. Gr., abt. 0.816.—*Uses:* Perfume & comp. spirits.—*Caut.* Keep well stopp'd, cool, fr. flame!

**Alcohol Allylic Merck** (20

(Allyl Alcohol).—By distil. glycerin. w. oxalic acid.— $C_3H_6O$ , or,  $CH_2:CH.CH_2OH$ .—Limpid

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



liq.; pung., character. odor.—*Misc. W.*, A., E.—*Boil.* 96° C.—*Sp. Gr.* 0.865 at 15° C.

**Alcohol Amylic Merck.—Highest Purity** (1)  
(Primary Isoamylic, Inactive Amylic, or Isopentyllic, Alcohol; Isobutylcarbinol).—Fr. fusel oil.— $C_5H_{12}O$ , or,  $(CH_3)_2CH.CH_2.CH_2OH$ .—Colorl., neut., v. diffusive, inflam. liq.; character., disagr. odor.—*Sol.* A., E., 40 W.—*Boil.* 131° C.—*Sp. Gr.* 0.814 at 15° C.—*Uses:* Artif. fruit essences & as solv. for alkaloids.

**do. Merck.—Pure** (1)  
(Pure Fusel Oil).—Mixture of higher alcohols fr. ferment. starch or sugar.— $C_5H_{12}O$ .—Colorl., neut. liq.; disagr. odor.—*Sol.* A., E., 40 W.—*Boil.* 128–130° C.—*Uses:* As solvent.

**do. Merck** (1)  
(Fusel, Grain, or Potato-spirit, Oil; Amyl Hydrate).—Mixture of higher alc., chiefly isobutylcarbinol.—Colorl. or yellowish, v. diffus. liq.; unpleas. odor.—*Sol.* W., A., E.—*Boil.* 128–130° C.—*Sp. Gr.*, abt. 0.833 at 15° C.—*Uses:* Chiefly as solv.; also in manuf. chem. and pharm. preparations (e.g. mercury fulminate, pyroxylin, artif. silk, pegamoid, in perfum. and lacquer manuf., in photography, etc.).

**Alcohol Amylic Merck.—Reagent** (3)  
 $C_5H_{11}OH$ .—Clear, colorl., neutr. liq.—*Misc.* A., E., benzine; sl. W.—*Sp. Gr.* 0.814.—*Boil.* 131° C.—*Tests:* (*Res.*) evap. 10 Gm. on W.-bath—none wghble.—(*Organ. Impur.* [Furfural, &c.]) a: shake 5 Cc. + 5 Cc. conc.  $H_2SO_4$ —not more than faint yellow or reddish color; b: shake 5 Cc. + 5 Cc. solut. KOH—no color.—*Uses:* Forensic analysis; solvent for alkaloids, partic. morphine.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.—Reagent.—For fat determination by Gerber's method** (2)  
Colorl. liq.—*Sp. Gr.* 0.815.—*Boil.* 128–130° C.—*Test:* shake 1 Cc. + 10 Cc. conc.  $H_2SO_4$  + 11 Cc.  $H_2O$  in a Gerber butyrometer, centrifuge 2–3 min., & let stand 24 hrs.—no oily ppt.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Alcohol Benzylic Merck** (60)  
(Benzyl Alcohol).—Fr. essential oil bitter almonds, or fr. benzaldehyde, by potass. hydroxide.— $C_7H_8O$ , or,  $C_6H_5.CH_2.OH$ .—Colorl. liq.; faint arom. odor.—*Sol.* E., methyl A.; 25 W.—*Boil.* 200–207° C.—*Sp. Gr.* 1.05 at 15° C.

**do. Merck.—Fr. Toluene** (16)  
Fr. benzoic acid, toluene, or balsam Tolu or Peru, by potass. hydroxide.

**Alcohol Butylic (Iso-) Merck** (1)  
(Isopropylcarbinol; Isobutyl Alcohol).—Fr. fusel oil.— $C_4H_{10}O$ , or,  $(CH_3)_2CH.CH_2OH$ .—

Colorl., mobile liq.—*Sp. Gr.* 0.806 at 15° C.—*Sol.* A., 10 W.—*Boil.*, abt. 106° C.

**Alcohol Butylic (Primary, Normal) Merck** (120)  
(Propylcarbinol; Butyric, or Normal Primary Butyl, Alcohol).—Fr. normal butyl aldehyde, by reduct.— $C_4H_{10}O$ , or,  $C_2H_5.CH_2.CH_2OH$ .—Limpid, colorl., h'ly refract. liq.; agre., vinous odor.—*Sp. Gr.* 0.811 at 15° C.—*Sol.* A., 12 W.—*Boil.* 115–117.5° C.

**Alcohol Butylic (Secondary) Merck** (400)  
(Methylethylcarbinol; Butylene Hydrate).—Fr. secondary butyl iodide, by silver acetate followed by saponif. w. potassa.— $C_4H_{10}O$ , or,  $CH_3.CH_2.CHOH.CH_3$ .—Limpid colorl. liq.; str. pleas. odor; burning taste.—*Sol.* A.; sl. in W.—*Boil.* 100° C.

**Alcohol Butylic (Tertiary, Pseudo) Merck** (80)  
(Trimethylcarbinol).—Fr. liq. isobutylene, by sulphuric acid with W.— $C_4H_{10}O$ , or,  $(CH_3)_3COH$ .—Wh. cryst.; camphor odor.—*Sol.* A.—*Melt.* 25–25.5° C.—*Boil.* 82° C.—*Caut.* Keep well stoppered.

*Alcohol Butyric.*—see **Alcohol Butylic, Primary, Normal**

**Alcohol Caprylic Merck** (20)  
(Capryl, Secondary Octylic, or Octoic, Alcohol).—Fr. acetyl ether of normal octylic alcohol fr. essent. oil Heracleum Sphondylium, L. (Cow Parsnip).— $C_8H_{18}O$ , or,  $CH_3(CH_2)_5CHOH.CH_3$ .—Colorl., oily, pung., arom. liq.—*Sp. Gr.* 0.823 at 15° C.—*Sol.* A., E., C.—*Boil.*, abt. 179° C.

**do. Merck.—Free fr. Ketones** (40)

**do. Merck.—From Castor Oil** (20)

**Alcohol Cetylic Merck** (60)  
(Ethal; Ethol; Cetyl, or Hecdecetylic, Alcohol; Normal Primary Hexadecyl Alcohol; Palmityl Alcohol).—Fr. spermaceti, by saponif. w. KOH.— $C_{16}H_{34}O$ , or,  $C_{16}H_{33}OH$ .—Wh. cryst.—*Sol.* A., E., C.—*Melt.* 50° C.—*Boil.* 344° C.—Renders the skin smooth and slippery.—*Uses:* Chapped hands, weeping ecz., & prurigo.

*Alcohol Cinnamic* (or, -ylic).—see **Styrone**

**Alcohol Cumic Merck** (200)  
(Paraisopropylbenzyl Alcohol).—Fr. cuminic aldehyde, by alcoholic KOH.— $C_{10}H_{14}O$ , or,  $C_6H_7.C_3H_7OH$ .—Colorl. liq.; burn. taste.—*Sp. Gr.* 0.977 at 15° C.—*Misc.*, all prop., A., E.—*Boil.* 246° C.

**Alcohol Dibromopropylic Merck** (30)  
(Alphabetadibromopropyl Alcohol; Betadibromhydrin).—Fr. allyl alcohol, by bromine.— $C_3H_6Br_2O$ , or,  $CH_2Br.CHBr.CH_2OH$ .—Colorl. liq.—*Boil.* 219° C.

*Alcohol Ethylene.*—see **Ethylene Glycol**

*Alcohol Ethylic.*—see **Alcohol**

*Alcohol Glycyl.*—see **Glycerin**

*Alcohol Hecdecetylic.*—see **Alcohol Cetylic**

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Esarine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Alcohol Heptylic Merck** (200)

(Normal Heptyl Alcohol).—Fr. *onanthol* by reduct.— $C_7H_{16}O$ , or,  $CH_3(CH_2)_5OH$ .—Colorl., fragr. liq.—Sp. Gr. 0.830 at 15° C.—Boil. 175° C.

**Alcohol Hexadecyl.**—see **Alcohol Cetyllic**

**Alcohol Isobutyl.**—see **Alcohol Butylic, Iso-**

**Alcohol Isopentyl.**—see **Alcohol Amylic**

**Alcohol Methylic Merck.**—Highest Purity (2

(Methyl Hydroxide or Hydrate). Wood Alcohol, Spirit, or Naphtha).—Prod. of destruct. distill'n of wood.— $CH_3O$ , or,  $CH_3OH$ .—Colorl., clear liq.; charact. odor.—Sp. Gr. 0.796 at 15° C.—Misc., all prop., W., A., E.—Boil. 65° C.—Sed.; Nar.; Antiem.—Uses: Diar., dysent.; for fever & cough of consumpt.—Dose 10–40 M (0.6–2.6 G).—Caut. Handle carefully. Keep fr. flame!

do. Merck.—Free fr. Acetone (2

do. Merck (1

95%  $CH_3OH$ .—Uses: Techn., instead of alcohol as fuel; in polishes, lacquers, varnishes, manuf. aniline dyes, & for denaturing alcohol, &c.

**Alcohol Methylic Merck.**—Reagent (2

$CH_3OH$ .—Colorl., mobile liq.—Misc., all prop., W., A., E., fixed & volat. oils.—Sp. Gr. 0.796.—Boil. 65–66° C.—Tests: (Res.) evap. 30 Cc. on W.-bath—none wghble.—(Acetone;  $C_2H_5OH$ ) 5 Cc. + 50 Cc. double-norm.  $NaOH$  + 25 Cc. double-norm. I, shake repeatedly—no turb. or floccul. ppt., & no odor of iodof.—(Empyricum. Substes) a: 1 Cc. + 10 Cc.  $H_2O$ —no turb.; b: 5 Cc. + 5 Cc. conc.  $H_2SO_4$  by drops while cooled—not more than sl. yellow color.—(Aldehyde) 10 Cc. + 10 Cc. solut.  $NaOH$  (sp. gr. 1.3) & shake—no color.—(Oxidiz. Substes) 10 Cc. + 1 drop decinorm.  $KMnO_4$ —red color should not disapp. within 10 minutes.—Uses: Detect. salicylic acid, determ. boric acid, prep. grape sugar, & as substit. for ethyl alcohol.

Note.—For complete tests see "Chemical Reagents; Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Alcohol Monochlorethyl.**—see **Ethylene Chlorhydrin**

**Alcohol Octoic.**—see **Alcohol Caprylic**

**Alcohol Octylic (Normal) Merck** (200

Fr. the etheral oil of *Pastinaca sativa*, L.— $CH_3(CH_2)_6CH_2OH$ .—Colorl. liq.—Sp. Gr. 0.831 at 15° C.—Sol. A., E., C.—Boil. 195° C.

**Alcohol Octylic, Secondary.**—see **Alcohol Caprylic**

**Alcohol Palmityl.**—see **Alcohol Cetyllic**

**Alcohol Paraisopropylbenzyl.**—see **Alcohol Cumic**

**Alcohol Phenylallylic.**—see **Styrone**

**Alcohol Propenyl.**—see **Glycerin**

**Alcohol Propylic (Iso-) Merck** (60

(Secondary Propyl, or Pseudopropyl, Alcohol).—Fr. isopropyl iodide, by lead hydroxide.— $C_3H_8O$ , or,  $(CH_3)_2CHOH$ .—Colorl., clear, mobile liq.; spir. odor.—Sp. Gr. 0.810 at 15° C.—Misc., all prop., W., A., E.—Boil. 82–83° C.

**Alcohol Propylic (Normal) Merck** (10

(Primary Propyl Alcohol).—Fr. fusel oil.— $C_3H_8O$ , or,  $CH_3(CH_2)_2OH$ .—Colorl. liq.; odor like that of ord. alc.—Sp. Gr. 0.8066 at 15° C.—Misc., all prop., W.—Boil. 96–98° C.

do. Merck.—Com'l.—Boil. 96–99° C. (2

**Alcohol Pseudobutyl.**—see **Alcohol Butylic, Tertiary**

**Alcohol Pseudopropyl.**—see **Alcohol Propylic, Iso-**

**Alcohol Styrylic.**—see **Styrone**

**Alcohol Trichloramidochylic.**—see **Chloralammonia**

**Alcohol, Wood.**—see **Alcohol Methylic**

**Alcohol-Acetic Acid.**—see **Carnoy's Alcohol-Acetic Acid**

**Alcornoco**

(Alcornoque; Alchornoco; Chabarro).—Bark of *Bowdichia virgilioides*, H. B. K. Leguminosae, Papilionaceae. (Source also ascribed to *Alchornea latifolia*, Euphorbiaceae).—Habit.: Venezuela; Brazil, etc.—Etymol.: "Alcornoco" and "alcornoque" are the Venezuelan names of the drug.—Long, flat, dull red-brown pieces of fibrous bark; moss-like odor, bitter and astring. taste.—Constit.: Alcornin; tannin.—Bitter Tonic; Febrif.—Uses: Phthisis.—Dose 30 grains (2 Gm.) in powd. or infus. is emetic.

**Aldehyde.**

**Aldehyde Acetic.** } —see **Aldehyde Ethylic**

**Aldehyde Anisic Merck** (10

(Anisaldehyde; Paramethoxybenzaldehyde; Aubépine).—Fr. anethol, by oxid'n.— $C_8H_8O_2$ , or,  $C_6H_4(OCH_3)CHO$ .—Colorl. liq. w. arom. odor.—Sol. A., E.—Boil. 245–246° C.—Sp. Gr. 1.126 at 15° C.—Uses: Perfumery; odor resembles that of hawthorn, but the aldehyde must be mixed w. other odorous substes to yield an agreeable odor.

**Aldehyde Butylic (Iso-) Merck** (70

(Isobutyryl Aldehyde).—Fr. isobutyl alc., by oxid'n w. chromic acid.— $C_4H_8O$ , or,  $(CH_3)_2CHCHO$ .—Transp., colorl., h'ly refract., pung. liq.—Sp. Gr. 0.797 at 15° C.—Misc., w. A.—Boil. 61° C.

**Aldehyde Caprylic Merck** (80

(Octoic Aldehyde; Methylhexylketone).—By dist'l. sodium ricinoleate &  $NaOH$ .— $C_8H_{16}O$ , or,  $C_7H_{15}CHO$ , if aldehyde;  $CH_3CO.C_6H_{13}$ , if methylhexylketone.—Colorl. liq.; pung. odor.—Sp. Gr. 0.819 at 20° C.—Boil. 171° C.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Aldehyde Cinnamic Merck** (10)  
(Cinnamaldehyde; Cinnamyl Aldehyde).—Aldehyde fr. oils of Ceylon & Chinese cinnamon.— $C_9H_8O$ , or  $C_9H_7CH:CH.CHO$ .—Yellowish oil; cinnamon odor.—Sp. Gr. 1.050 at 20° C.—*Sol.* A., E., C.—*Boil.* 128–130° C. at 20 Mm., and at abt. 245° C. at atmosph. pressure, w. part decomp.—Decomp. on distil.—*Caut.* Keep well stoppered.

*Aldehyde Cinnamyl.*—see **Aldehyde Cinnamic**

*Aldehyde Cuminic.*—see **Cuminol**

**Aldehyde Ethylic Merck.**—Absolute (5)  
(Aldehyde; Ethylaldehyde; Acetic Aldehyde; Acetaldehyde).—By oxid'g ethyl alcohol w. chromic acid.— $C_2H_4O$ , or  $CH_3.CHO$ .—Colorl., light, inflam. liq.; pung., suffoc. odor.—Sp. Gr. 0.790 at 15° C.—*Misc.*, all prop., W., A., E.—*Boil.* 22° C.—*Uses:* Manuf. paraldehyde & aldehyde green.

do. **Merck.**—Highly concentr. (2)

do. **Merck.**—Concentr. (2)

*Aldehyde Furfuranecarboxylic.*—see **Furfural**

*Aldehyde Heptic* (or, *-ylic*).—see **Oenanthal**

*Aldehyde Isobutyryl.*—see **Aldehyde Butylic, Iso-**

*Alcohol Isopentyl.*—see **Alcohol Amylic**

*Aldehyde Isovaleric.*—see **Aldehyde Valeric, Iso-**

*Aldehyde Octic.*—see **Aldehyde Caprylic**

*Aldehyde Paracuminic.*—see **Cuminol**

*Aldehyde Para-isopropylbenzoic.*—see **Cuminol**

*Aldehyde Propionic.*—see **Aldehyde Propylic**

**Aldehyde Propylic Merck** (90)  
(Propionic, or Propyl, Aldehyde).—Fr. normal propyl alcohol by oxid'n.— $C_3H_6O$ , or  $CH_3.CH_2.CHO$ .—Colorl. liq. w. suffoc. odor.—*Sol.* W.—*Boil.* 48° C.—Sp. Gr. 0.807 at 20° C.

*Aldehyde Pyromucic.*—see **Furfural**

*Aldehyde Salicylic.*—see **Acid Salicylous**

**Aldehyde Valeric (Iso-) Merck** (50)  
(Isovaleral; Isovaleric Aldehyde).—Fr. oxid'n of amyl alc., or fr. distil. of isovalerates.— $C_5H_{10}O$ , or  $(CH_3)_2CH.CH_2.CHO$ .—Colorl. liq.; pung., apple-like odor.—*Misc.* A., E.—*Boil.* 92° C.—Sp. Gr. 0.804 at 15° C.—*Uses:* Artif. flavor and perfum.

**Aldehyde-ammonia Merck.**—Pure, cryst. (15)  
(Ammoniated Ethylic Aldehyde).—Fr. aldehyde, by dry  $NH_3$ .— $C_2H_5NO$ , or  $C_2H_4O.NH_3$ , or  $CH_3.CH(HO).NH_2$ .—Colorl. cryst.; turn brown in air.—*Sol.* W.; sl. in E.—*Melt.* 70–80° C.—*Boil.* 100° C.—*Uses:* Prep'g pure aldehyde.—*Caut.* Keep fr. light & air.

*Alder; American-, Black-, Common-, Smooth-, or Tag.*—see **Alnus Serrulata**

*Aldoxim.*—see **Acetaldoxim**

*Alembroth Salt.*—see **Mercury & Ammonium Bichloride**

**Aletrin** (10)  
Powd. concentration fr. root *Aletris farinosa* (StarGrass).—Dark-brown powd., intens. bitter.—*Sol.* A.—*Tonic; Cath.; Emetic.*—*Uses:* By Eclectics in colic, dropsy, & chronic rheumat.—*Dose* 1–3 grains (0.06–0.2 Gm.) daily, in pills.

**Aletris**

(Star Grass; Starwort; False Unicorn Root; Blazing Star; Colic Root).—Rhizome of *Aletris farinosa*, L. Liliacæ (Aletroidæ).—*Habit.*: Ontario; Eastern U. S.—*Etymol.*: Grk. "ale-treuin," to mill, referring to the mealy pubescence—i.e., the flowers are white, & as though dusted with meal. "*Farinosa*" fr. Lat. "farinosus," floury.—Rhizome is abt. 1 in. long,  $\frac{1}{8}$  in. thick; upper side flattened; root whitish; taste amylaceous and bitter.—*Constit.*: Starch; bitter principle.—*Tonic; Diuret.; Vermif.; Lax.; Emct.*—*Uses:* Amenor.; dysmenor.; leucorrh.; dropsy, colic, rheumat., etc.—*Dose* 5–10 grains (0.3–0.6 Gm.) in infus., decoct., or tinct.—Alcoh. extr.  $\frac{1}{2}$ –3 grains (0.03–0.2 Gm.).—Fld. extr. 30–60  $\mathfrak{M}$  (2–4 Cc.).

**Aleuronat** (1)

Aleuronat flour is a plant albumin, used as a nutrient.—Yellowish-wh., tastel. powd.—*Uses:* In manuf. of bread for diabetics, and also in surgery, because of its chemotactic action on leucocytes, for filling spaces where the continuity of tissue is broken, and for effecting union of adjacent tissues.

*Algaroth Powder.*—see **Antimony Oxychloride**

*Alginid Antimony, Arsenic, Bismuth, Iron, Magnesium, & Mercury.*—see **Antimony, Arsenic, Bismuth, &c., Alginate**

**Alizarin Merck.**—Dry (16)  
(Orthodihydroxyanthraquinone; Dioxyanthraquinone,  $\alpha$ - $\beta$ ; Dihydroxyanthraquinone).—Fr. anthraene.— $C_{14}H_8O_4$ , or  $C_6H_4(CO)_2.C_6H_2(OH)_2$ .—Yellow cryst.—*Sol.* A., E., B.—*Melt.* 282° C.—*Uses:* Dye.

do. **Merck.**—Paste (3)

Prep. of alizarin cont'g 20%.—*Sol.*, solut. sod. carbonate.—*Uses:* Dye. With metallic oxides (e.g. of aluminum) it yields colored lakes, hence its applic. in dyeing & printing calicoes.

do.—Solution (1)

1% solut. Alizarin S. (Alizarin Blue, Soluble, the sodium-bisulphite comp. of dioxyanthraquinonequinoline,  $C_{17}H_{14}NO_{10}S_2Na_2$ ) in physiological-salt solut.—*Uses:* Staining cell nuclei and cytoplasm blue.

*Alizarin Carmine.*—see **Sodium Alizarinsulphonate**

*Alizarin Green.*—see **Coerulein**

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

## Alizarin Red

Brownish-yellow powd.—*Sol.* W. & A., w. yellow color; in alkalis w. red color.

## Alizarin Yellow.—see Gallacetophenone

## Alkali-Albuminate Deycke-Merck (40)

Powd. of alkaline reaction.—*Sol.*, eas. W.—*Uses*: As culture medium for obtaining pure cultures of cholera and diphtheria bacilli.

## Alkali Blue 5 B (Also 3 B & 2 B) Merck (10) do. B (Also R) Merck (8)

Commercial varieties of blue dyes occurring in the form of a blue powder usually soluble in cold or hot water, and consisting of the sodium salt of triphenylpararosanilinemonosulphonic acid, or of mixtures of the sodium salt and the free acid.—*Uses*: Dyeing wool blue.

## Alkanet.—see Alkana

## Alkanin.—see Extract Alkanet

## Alkanin Paper

(Anchusin Paper; Boettger's Paper).—Wh. paper charged w. 3% alc. solut. alkanin & dried.—*Uses*: Indicator (alkalies = green or blue; acids = red).

## Alkana

(Alkanet; Orcanette; Dyer's Alkanet; Anchusa).—Root of Alkana (Anchusa) tinctoria, Tausch. Boraginaceæ.—*Habit.*: Mediterranean region; Hungary; Western Asia.—*Etymol.*: Arabic "alhenneh."—*Constit.*: Alkanin,  $C_{15}H_{14}O_4$ ; tannin.—*Uses*: Astring.—*Techn.*, in dyeing.—The tincture is used for coloring oils a bright red.—Alcoh. extr. is solub. in A., E., B., and oils, and is used for coloring oils, fats, etc.

## Alkannin.—see Extract Alkanet

## Alkekengi

(Winter Cherry; Strawberry Tomato; Bladder Herb).—Fruit (berry) of Physalis Alkekengi, L. Solanaceæ.—*Habit.*: Mediterranean eastward to Japan.—*Etymol.*: "Alkekengi" is the Arabian name of the plant. "Physalis," fr. Grk. "physa," bladder, referring to the puffed-up appearance of the pericarp.—A round red berry, abt. as large as a cherry; contains numerous flat, kidney-shaped seeds; very juicy when fresh; acidulous, bitterish taste; on drying they shrink, and become brownish-red.—*Constit.*: Physalin,  $C_{14}H_{16}O_5$ ; citric acid; sugar.—*Diur.*: Febrif.; Antipodagr.; Aperient.—*Dose* 6–12 berries.—Alcoh. extr., 5–8 grains (0.3–0.5 Gm.).

## Allantoin Merck (160)

(Glyoxyldiureid).—Fr. amniotic and allantioic fluids.— $C_4H_6N_4O_3$ , or,  $CO(NH)_2.CO.CH.NH.CO.NH_2$ .—Wh. cryst.—*Sol.*, hot W.—Decomp. w. heat.

## Allium

(Garlic).—Bulb of Allium sativum, L. Liliaceæ (Allioidæ).—*Habit.*: Central Asia; Southern Europe.—*Etymol.*: "Allium," according to

Pliny, is our garlic, and is possibly derived fr. "halare," to give off an odor; or, fr. Celtic "all," hot, burning, on account of its pungent taste. Lat. "sativum," cultivated.—*Constit.*: Volat. oil; mucilage; albumin.—*Diaphor.*; *Diuret.*; *Anthem.*; *Rubefac.*; *Expector.*—*Uses*: *Bronch.*, *pneum.*, and infant. convuls. Also in cookery.—*Dose* 30–60 grains (2–4 Gm.), usually as syrup of garlic.—*Fld.* extr., 30–60 M (2–4 Cc.).

## Allium Victorialis

(Allerman's Root; Radix Victorialis).—Root of Allium Victorialis, L. Liliaceæ (Allioidæ).—*Habit.*: Central Europe; Asia.—*Etymol.*: "Victorialis," in reference to the frequent occurrence of the plant on Mount St. Victoire, in Provence; or, fr. the use of the root as a talisman in battle, for insuring victory.—*Diuret.*; *Vermif.*; *Stimulant.*

## Allophanamide.—see Biuret

## Alloxan Merck (50)

(Mesoxalylurea; "Erythric Acid").—Fr. uric acid, by oxid'n. —  $CO(NH.CO)_2CO + H_2O$ .—Colorl. cryst.—*Sol.* W., A. Aqu. solut. colorl., but imparts a fine pink color to the skin, hence at one time used as cosmetic like rouge.—Decomp. by heat.—*Caut.* Keep in gl.-stp. bot.

## Alloxantin Merck (80)

(Uroxin).—Fr. uric acid, by oxidation w. warm dil. nitric acid.— $C_8H_4N_4O_7 + 3H_2O$ .—Sm., wh. cryst.—*Sol.*, warm W.

## Allspice.—see Pimenta

## Allyl Alcohol.—see Alcohol Allylic

## Allyl Bromide Merck (40)

(Monobromopropylene).—Fr. allyl alcohol, by Br w. P.— $C_3H_7Br$ , or,  $CH_2.CH.CH_2Br$ .—Colorl. liq.; pung. odor.—Sp. Gr. 1.436 at 15° C.—*Sol.* A., E.—*Boil.* 70–71° C.

## Allyl Chloride Merck (40)

Fr. allyl alcohol, by phosphorus trichloride.— $C_3H_5Cl$ , or,  $CH_2.CH.CH_2Cl$ .—Colorl. liq.—Sp. Gr. 0.937 at 20° C.—*Boil.* 44–46° C.

## Allyl Iodide Merck (40)

React.-prod. of phosphorus, iodine, & allyl alcohol.— $C_3H_5I$ , or,  $CH_2.CH.CH_2I$ .—Yellowish liq.—Sp. Gr. 1.785 at 15° C.—*Sol.* A.—*Boil.* 100–102° C.

## Allyl Isothiocyanide.—see Oil Mustard, Artificial

## Allyl Oxide (70)

(Diallyl Oxide; Propenyl Oxide; Glycerinic or Glycerin Ether).—By-prod. of allyl alc. fr. glycerin & oxalic acid.— $C_6H_{10}O_3$ , or,  $(C_3H_5)_2O_3$ .—Yellow liq.—Sp. Gr. 1.16 at 15° C.—*Sol.* W., A., C.—*Boil.* 171–172° C.

## Allyl Sulphide Merck (140)

(Diallyl Sulphide; Thioallylic Ether; "Oil of Garlic").—React.-prod. of alcoholic potass. sul-

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



phide & allyl iodide; or fr. garlic, leeks, onions, &c., by distil'n.— $C_6H_{10}S$ , or,  $(C_3H_5)_2S$ .—Yellowish oil; garlic odor.—*Sol.* A.; sl. in W.—*Boil.* 138° C.—*Antidiar.*; *Stomachic.*; *Nerv.*—*Uses*: Cholera, tuberc., indigest., hyst., &c.—*Doses*: 1 or 2 ℥ (0.06–0.12 Cc.) well diluted & flav. w. pepperm. oil. In tuberculosis, inject. of 15–30 ℥ (1–2 Cc.) of a mixt. of 3 ℥ (0.2 Cc.) allyl sulphide and 25 ℥ (1.6 Cc.) olive oil; in cholera, intestinal irrigat. of a 1:1000 aq. solut. warmed to 36° C., 3 t. p. d., and internally,  $\frac{1}{3}$ – $\frac{1}{2}$  ℥ (0.02–0.03 Cc.) ev. half hr. in mixture.

*Allyl Sulphocarbamide.*—see **Thiosinamine**

*Allyl Sulphocyanide.*—see **Oil Mustard, Artificial**

*Allyl Sulphoured.* } —see **Thiosinamine**

*Allyl Thiocarbamide.* }

*Allyl Thiocyanate* (or, *-ide*).—see **Oil Mustard, Artificial**

*Allyl Thiourca.*—see **Thiosinamine**

**Allyl Tribromide Merck** (30

(Tribromhydrin; 1. 2. 3. Tribrompropane; Tribrompropylene; Propargyl Tribromide).—Fr. allyl iodide, by bromine.— $C_3H_5Br_3$ , or,  $CH_2Br-CHBr-CH_2Br$ .—Colorl. liq.; cryst. mass when cooled.—*Melt.*, abt. 20° C.—*Sp. Gr.* 2.430 at 15° C.—*Sol.* A., E.—*Boil.* 219–221° C.—*Sed.*; *Antispasm.*—*Uses*: Hyst., asthma, whoop-cough, &c.—*Dose* 5–10 ℥ (0.3–0.6 Cc.) 2 or 3 t. p. d., in capsule.—*Inj.* 2 or 3 ℥ (0.12–0.2 Cc.) in 20 ℥ (1.3 Cc.) of ether.

**Allylamine Merck** (160

Fr. allyl cyanate, or oil of mustard.— $C_3H_7N$ , or,  $CH_2=CH-CH_2-NH_2$ .—Colorl. liq.; pung. odor of ammonia.—*Sp. Gr.* 0.864 at 15° C.—*Misc.* E., C.; *sol.* A., W.—*Boil.* 56–58° C.

**Almatein**

Condens. prod. hematoxylin & formaldehyde.— $CH_2O_2$ ;  $(C_{16}H_{12}O_5)_2 \cdot CH_2$ .—Light, tastel., odorl., bright-red or brownish-red powd.—*Sol.* A., acetic ether, acetone, alkalies, & eas. G.; insol. W.—*Antisept.*; *Intest. Disinf.*; *Vulner.*—*Uses*: *Intest. affect.* (diarrh. & dysentery), urticar., &c.—*Dose* 3–10 grains (0.2–0.6 Gm.) single; 75 grains (5 Gm.) p. d.—*Appl.*, as dust-powd. pure or w. inert powd., or in G. solut.

**Almén's Reagent.**—For blood (8

(Almén-Schoenbein's Reagent).—Mixt. of tinct. guaiac and oil turpentine.—If blood present, a blue color develops on shaking reagent vigorously and then allowing liquid to be tested to run in carefully.

**Almond, Bitter.**—U. S. P.

Ripe seed of *Prunus Amygdalus* Stokes (*Amygdalus communis*, L.), var. amara, D. C. Rosaceæ (*Amygdalæ*).—*Habit.*: Italy, Spain, and Southern France.—*Etymol.*: Lat. "prunum," from Grk. "prounos," plum tree; and Grk. "amygdalos," almond tree, fr. Syriae "ah-myg-dala," handsome tree.—*Constit.*: Fixed oil; amygdalin,

$C_{20}H_{27}NO_{11}$ ; proteids; emulsin (synaptase); sugar.—*Uses*: Preparation of amygdalin, essential and expressed oils almond, and bitter-almond water; as flavor for foods and candies; in perfumery, and in manuf. of liqueurs and cocoanut-oil soap.

**Almond Meal** (1

The residue left on expressing the oil from almonds.—*Uses*: As cosmetic, and for manf. bitter-almond water.

**Almond, Sweet.**—U. S. P.

Ripe seed of *Prunus Amygdalus* Stokes (*Amygdalus communis*, L.), var. dulcis, D. C. Rosaceæ (*Amygdalæ*).—*Habit.*: Italy, Spain, and Southern France.—*Etymol.*: See bitter almond above.—*Constit.*: Fixed oil (chiefly); proteids; emulsin.—*Uses*: In perfumery and sweetmeats; in prep. expressed oil almond, almond milk, almond meal, etc.

**Alnuin**

Dried, powd. extr. bark *Alnus serrulata*, Willd. (American Alder).—Brown powd.—*Sol.* A.—*Antipyr.*; *Antisept.*; *Astring.*—*Uses*: By the Eclectics in interm. fever, & as hemost.—*Dose* 2–10 grains (0.12–0.6 Gm.).

**Alnus Serrulata**

(Smooth-, American-, Tag-, Red-, Black-, or Common, Alder).—Bark of *Alnus serrulata*, Willd. Betulaceæ.—*Habit.*: U. S.—*Etymol.*: Fr. Celtic "al," near, and "lan," a river bank, i. e., the plant grows near the border of streams. "Serrulata" fr. Lat. "serrulatus," diminutive of "serratus," saw-like, referring to the serrate leaves.—*Constit.*: Resin; oils; tannin; alnuin(?).—*Dose*: Fld. extr. 30–60 ℥ (2–4 Cc.).

**Aloe-Purple Merck** (50

(Impure Aloetic Acid).—Orange-yellow powd.—*Sol.* W., and alkalies, affording purple solutions.—*Uses*: Dyeing silk, wool, and cotton.—See also Aloetic Acid.

**Aloes, Barbadoes** (1

(Curaçao Aloes).—Inspis. juice of lvs. of *Aloe vulgaris*, Lam., *A. vera* L., *A. chinensis*, Baker, A. Perryi, Baker, and other *A.* species. Liliaceæ.—*Habit.*: West Indies (Barbadoes and Jamaica).—*Etymol.*: See Aloes. Socotrine.—Orange-brown to blackish-brown, opaque, resin-like masses; saffron-like odor; strongly-bitter taste.—*Constit.*: Ethereal oil; resin; barbaloin; isobarbaloin; emodin.—*Sol.* W., A.—*Uses, Doses & Incomp.*: As of Aloes, Socotrine.

**Aloes, Cape** (1

Inspis. juice fr. lvs. of various sp. aloe, chiefly *A. ferox*, Miller, *A. africana*, Lamarek, and *A. spicata*, Thunb. Liliaceæ.—*Habit.*: Southern Africa, near Cape of Good Hope.—*Etymol.*: See Aloes, Socotrine.—Olive-colored lumps or deep-brown masses with greenish tint; shining,

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Styehnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



smooth surface; resinous fract.; thin splinters, transp. and reddish-brown; disagree. odor and charact., bitter taste.—*Constit.*: Ethereal oil, resin; barbaloin (cappaloin); emodin.—*Uses.* As of Aloes, Socotrine; also techn., in dyeing & in manuf. brown dyes.—*Doses & Incomp.*: As of Aloes, Socotrine.

**Aloes, Hepatic (Curaçao)** (1)

Inspis. juice of lvs. of *Aloe vulgaris*, Lam., *A. chinensis*, Baker, and other *A.* species. Liliaceæ.—*Habit.*: Dutch West Indies (Curaçao, Bonaire, and Aruba).—*Etymol.*: See Aloes, Socotrine.—Orange to blackish-brown opaque masses, transl. in thin pieces; uneven, waxy, somewhat resinous fracture; unpleasant odor and nauseous bitter taste.—*Constit.*: (Curaçaloin); ethereal oil; resin acids, barbaloin, and isobarbaloin.—*Uses, Doses, & Incomp.*: As of Aloes, Socotrine.

**Aloes, Purified** (1)

From com'l Socotrine aloes.—Dull-brown or reddish-brown, brittle pieces; charact. arom. odor of Socotrine aloes, and bitter taste.—*Sol.*, alm. entirely in A.; sl. W.—*Cath.*; Emmen.; Lax.—*Uses.*: Usually with other drugs; acts mostly on lower bowel.—*Doses*:  $\frac{1}{2}$ –10 grains (0.03–0.6 Gm.).—*Tinet.* 5–10  $\text{M}$  (0.3–0.6 Cc.).—*Incomp.*: As of Aloes, Socotrine.

**Aloes, Socotrine** (1)

Inspis. juice of lvs. of *Aloe Perryi*, Baker (and probably other *A.* species), Liliaceæ.—*Habit.*: Island of Socotra (in straits of Bab-el-Mandeb).—*Etymol.*: Arabic, "alloe"; Hebrew, "halal," shining, bitter; Grk., "aloe."—Yellowish-brown, orange-brown, or dark, ruby-red masses, not greenish; transl. on edges; resinous, somewhat conch. fracture; saffron-like odor; strongly-bitter taste; powd. yellowish-brown.—*Constit.*: Barbaloin, isobarbaloin (socaloin); resin; emodin; ethereal oil.—*Sol.*, alm. entirely in A., and in 4 pts. boil. W.—Bitter Tonic; Lax.; Purg.; Emmen.—*Uses.*: Hemorrhoids, constip., amenorrh., jaundice, and chlorosis.—*Doses.*: Tonic,  $\frac{1}{2}$ –2 grains (0.03–0.12 Gm.); lax., 2–10 grains (0.12–0.6 Gm.); cath., 10–20 grains (0.6–1.3 Gm.).—*Aqu. extr.*, 1–6 grains (0.06–0.36 Gm.).—*Fld. extr.*, 10–30  $\text{M}$  (0.6–2 Cc.).—*Incomp.*: Mercury nitrate; silver nitrate.

**Aloin Merck** (1)

(Barbaloin).—Active prin. of Barbadoes aloes (the aloin of the U. S. P. is prepared chiefly fr. Curaçao aloes).— $\text{C}_{16}\text{H}_{16}\text{O}_7 + 3\text{H}_2\text{O}$ .—Yellow cryst.; bitter taste.—*Sol.*, formamide, hot W., A.—*Cath.*—*Uses.*: Chronic constip., espec. when complicated w. hemorrhoids.—*Dose*  $\frac{1}{2}$ –2 grains (0.03–0.12 Gm.).—*Inj.*  $\frac{3}{4}$  grain (0.05 Gm.) diss. in formamide.—*Max. D.* 4 grains (0.25 Gm.) single; 10 grains (0.6 Gm.) p. day.

**Alphachloralose**.—see Chloralose

**Alphadiaminotoluene** (or -ol).—see Toluylenediamine

**Alphadibromanthracene**.—see Dibromanthracene

**Alphadichlorethane**.—see Ethylidene Chloride

**Alphadimethylglyoxime**.—see Dimethylglyoxime

**Alphadinitrophenol**.—see Dinitrophenol

**Alphadiphenylenemethane**.—see Fluorene

**Alpha-Eucaine**.—see Eucaine A

**Alphamethylpyridine**.—see Picoline

**Alphamethylquinoline**.—see Quinaldine

**Alphamononitronaphthalene**.—see Nitronaphthalene, Alpha-

**Alphanaphthol Merck**.—Recryst., Medicinal (6)

Constit. of coal-tar; also obt. artificially.— $\text{C}_{10}\text{H}_7\text{O}$ , or,  $\text{C}_{10}\text{H}_7\text{O} \cdot \text{H}_2\text{O}$ .—Colorl. prisms or powd.; disagree. taste.—*Sol.* A., E.; sl. in W.—*Melt.* 94° C.—*Boil.* 278–280° C.—Antisept.; Antiferment.—*Uses.*: Recom. diar., dysent., cholera, typhoid fever, gout, oxalurea, hepatic cirrhosis, influenza, measles, smallpox, scarlet fever, & summer complaints. 0.1–0.25/1000 prevents the development of the spores of the tubercle bacilli. Reported 3 times as strong as betanaphthol.—*Doses*: *Intern.*, as antiferment, 30 grains (2 Gm.) in 1 fl. oz. (30 Cc.) castor oil, given in two portions within 2 hrs.; in typhoid fever, 45–90 grains (3–6 Gm.) per day.—*Extern.*, in erysipelas, smallpox, scarlet fever, & tuberculous laryngitis, in 10–20% oily solut.

**do.**—Purified (2)

**Alphanaphthol Merck**.—Reagent.—Recryst. (7)

$\text{C}_{10}\text{H}_7\text{O} \cdot \text{H}_2\text{O}$ .—Colorl., lustr. need.; phenol. odor.—*Sol.*, cas. A., B., C., E.; diffic. cold, more read. in hot W.—*Tests*: (Res.) ignite 1 Gm. on platin. foil—none wghble.—(*Organ. Acids*) shake 1 Gm. + 100 Cc.  $\text{H}_2\text{O}$ , & filter—filtrate should not redden litmus.—*Uses.*: Detect. sugar, hydrated chloral, chloroform, nitrous acid, free acids & acid salts, carbohydrates in urine, salts of chronic acid, & as reagent for free HCl in gastric contents.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Alphanaphtholbenzein Merck** (40)

$\text{C}_{54}\text{H}_{38}\text{O}_5$ , or,  $(\text{C}_6\text{H}_5)_2\text{C}(\text{C}_{10}\text{H}_6\text{OH})_2 \cdot \text{O} \cdot (\text{C}_6\text{H}_5)_2\text{C}(\text{C}_{10}\text{H}_6\text{OH})_2$ .—Reddish-brown powd.—*Sol.* A., E., B., glacial acetic acid; insol. W.—*Uses.*: In 1% alcohol. solut. as indicator (alkalies = green; acids = reddish-yellow). Very sensit. to  $\text{CO}_2$ .

**Alphanaphthol Orange**.—see Tropæoline 000 No. 1

**Alphanaphthol Salicylate**.—see Alphenol

**Alphanaphthoquinone**.—see Naphtoquinone, Alpha-

**Alphanaphthylamine**.—see Naphtylamine, Alpha-

**Alphanaphthylhydrazine Hydrochloride**.—see Naphtylhydrazine (Alpha-) Hydrochloride

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Alphanitrosobetanaphthol*.—see **Nitrosobetanaphthol**

*Alphapicoline*.—see **Picoline**

*Alphapropenylchlorhydrin*.—see **Monochlorhydrin**

*Alphapropenyldichlorhydrin*.—see **Dichlorhydrin, Alpha-**

**Alphol Merck** (20

(Salicylic Ester of Alphanaphthol; Alphanaphthol Salicylate).—Fr. salicylic acid & alphanaphthol. — $C_{17}H_{12}O_3$ , or,  $C_6H_5(OH)COO.C_{10}H_7$ .—Reddish-wh. cryst. powd.—*Sol.* A., E., fatty oils; insol. W. —*Melt.* 83° C.—*Intern.* Antisept.; Antirheum.—*Uses:* Gonorr., cystitis, sunburn dis. of children, typh. fever; rheumat. affec.—*Dose* 8-15 grains (0.5-1 Gm.) 3 t. p. d., in wafers or powd.

**Alphozone** (90

(Succinyl Peroxide).— $(COOH.CH_2.CH_2CO)_2O$ . —Wh. powd.—*Sol.* 30 W.—Germicide; Antisept.—*Uses:* *Intern.*, typhoid fever, infect. diarrh., abnorm. ferment. intestinal processes.—*Extern.*, wounds, ulcers, tonsilitis, leucorrh., etc.

*Alsol*.—see **Aluminum Acetotartrate**

**Alstonia**

(Australian Fever Bark; Australian Native Quinine; Fever Bark; Bitter Bark).—Bark of *Alstonia constricta*, F. v. M. Apocynaceæ.—*Habit.*: Australia (Queensland and New South Wales).—*Etymol.*: After Chas. Alston, a Scotch botanist (1683-1760).—Semicirc. pieces 6 in. to 2 feet long,  $\frac{1}{2}$  in. to 3 in. thick, and 2 to 4 in. wide; grayish-brown extern.; yellow intern.; affords a dingy yellow powd.; faint, not unpleasant odor, and persist., purely bitter taste.—*Constit.*: Alstonine (chlorogenine),  $C_{25}H_{35}N_3O_4 + 3\frac{1}{2}H_2O$ (?); alstonicine; porphyrine,  $C_{21}H_{25}N_3O_2$ (?); alstonidine; porphyrosine.—Inner bark is Antiperiodic; outer bark Antirheumatic.—*Uses:* Malarial fever.—*Doses:* 2-8 grains (0.12-0.5 Gm.) as febrif.; 1 grain (0.06 Gm.) as tonic.—*Fld. extr.*, 30-60  $\mathfrak{m}$  (2-4 Ce.).

*Alstonine*.—see **Chlorogenine**

**Althæa**.—*U. S. P.*

(Marshmallow).—Dried root of *Althæa officinalis*, L. Malvaceæ, fr. plants of second year's growth, and deprived of periderm.—*Habit.*: Europe; Western and Northern Asia; nat. in Eastern U. S.—*Etymol.*: Grk. "althein" to heal, to cure, referring to its medicinal qualities (Dioscorides).—*Constit.*: Asparagin,  $C_4H_8N_2O_3 + H_2O$ ; mucilage; sugar; betaine; starch.—*Demulc.*; Emoll.; Protective.—*Uses:* Coughs, colds, & in bronch. affect. & inflam. condit. of urinary passages.—*Dose* 30-60 grains (2-4 Gm.).—*Fld. extr.*, 30-60  $\mathfrak{m}$  (2-4 Ce.).

**Althæa Flowers and Leaves**

Flowers and lvs. of *Althæa officinalis*, L., Malvaceæ.—*Habit.*: Europe; Western and

Northern Asia; naturalized in New England; New York; Australia.—*Etymol.*: See *Althæa*, above.—*Constit.*: Flowers: Asparagin; pectin; mucilage; sugar.—Lvs. contain mucilage.—Emollient; Demulc.—*Uses:* Chiefly as cataplasm.

**Althæa Rosea**

(Althæa Rose; Flores *Malvæ arboreæ*; Holly-hock).—Flowers of *Althæa rosea*, Cav. Malvaceæ.—*Habit.*: Levant; Europe; cultiv. in gardens.—*Etymol.*: "Malva," fr. Grk. "malakos," soft, mild, i.e. because of the emollient properties of the plant. "Althæa," fr. Grk. "althein," to cure, to heal.—*Constit.*: Pectin; tannin; coloring matter.—*Uses:* Emoll., Demulc.; also as dye. Paper impregnated with the coloring matter is used as an indicator in volumetric analysis.

*Althein*.—see **Asparagin**

*Alum*.—see **Aluminum & Potassium Sulphate**

*Alum, Ammonia*.—see **Aluminum & Ammonium Sulphate**

*Alum, Caesium*.—see **Aluminum & Caesium Sulphate**

*Alum, Caesium-Rubidium*.—see **Aluminum & Caesium & Rubidium Sulphate**

*Alum-Carmine*.—see **Grenacher's Alum-Carmine**

*Alum-Carmine, Acetic*.—see **Henneguy's Acetic Alum-Carmine**

*Alum, Chrome*.—see **Chromium & Potassium Sulphate**

*Alum-Cochineal*.—see **Czokor's Alum-Cochineal**

*Alum, Manganous Ammonium*.—see **Manganese & Ammonium Sulphate**

*Alum Root*.—see **Geranium**

*Alum, Rubidium*.—see **Aluminum & Rubidium Sulphate**

*Alum, Sodium*.—see **Aluminum & Sodium Sulphate**

*Alumina, Hydrated*.—see **Aluminum Hydroxide**

*Aluminium*.—see **Aluminum**

**Aluminum Merck**.—In thin bands, bars, thick and thin sheets, thick and thin wire, and leaf (2

(Aluminium).—*Etymol.*: Fr. Lat. "alumen," alum, a name already known to Pliny for the mineral in which a characteristic oxide, alumina, was found.—Metal prod. fr. double fluoride of sodium & aluminum in electric furnace.—Al—Tin-wh., mall., duct. metal capable of taking brill. polish.—*Sol.*, mineral acids & strong alkali solut.—*Fuses* at 700° C.—*Uses:* Techn. and industr. in form of pure metal, and as alloy (magnalium) for utensils, parts of machines, electrical conductors instead of copper; the

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

coarse powd. is used in aluminothermies; the fine powd. as flash-light in photography, and in manuf. of steel for absorbing occluded gases.

**Aluminum Merck.**—Fine powder (3)  
*Uses:* For photo. flash-lights.

**do. Merck.**—Coarse powder (3)

**Aluminum Acetate.**—see **Lenicet**

**Aluminum Acetate Merck.**—Basic (2)

Fr. aluminum acetate solut., by rap. drying on glass at a low temp.— $\text{Al}_2\text{O}_3 \cdot 10\text{C}_2\text{H}_3\text{O}_2 + 11\text{H}_2\text{O}$ .—Wh. cryst. or amorph. powd.—Insol. in W.—Antisep.—*Uses:* Chiefly as mordant, and as disinfect. by embalmers.—*Intern.*, diar. & dysent.—*Dose* 5-10 grains (0.3-0.6 Gm.) 3 t. p. d.

**do. Merck.**—8% Solution (1)

8% basic aluminum acetate.—Clear, colorl. liq.—Sp. Gr. 1.044-1.048 at 15° C.—*Misc. W.*—Antisep.; Astring.—*Uses:* *Intern.*, diar. & dysent.—*Extern.*, as lotion for putrid wounds & in skin affect.; inj., in gonorrh.; as mouth wash & for fetid breath. Also as embalming fluid.—*Dose* 3-15 M (0.2-1 Cc.) in sweetened W.—*Appl.*: *Extern.*, 1:15; as mouth wash, 1-3:100; & as enema, 1:150.

**do. Merck.**—5% Solution (1)

5% basic aluminum acetate.—*Doses & Appl.*: One-half more than the 8% & for sim. purposes.

**Aluminum Acetoborate Merck** (4)

Wh. powd.—Antisep.; Disinf.

**Aluminum Acetoglycerinate Merck** (2)

(Glycerolate or Glycerite of Aluminum Acetate).—Antisep.

**Aluminum Acetotartrate Merck.**—Dry (2)

(Also).—Colorl. cryst.—*Sol.*, compl. but slowly in W.; insol. A., E., G.—Energetic non-poison. Disinf. & Astring.—*Uses:* Chiefly in dis. of the air passages.—*Appl.*, in 0.5-2% solutions as nasal douche; or as snuff, with twice its weight of powdered boric acid. Conc. aqu. solut. for chibbl.; dil. 1-3% solut. used instead of solut. aluminum acetate and Burow's solut.

**do. Merck.**—Dry, soluble powder (2)

**do.**—Solution.—*N. F.*

Colorl. liq.—50% so-called "aluminum aceticotartrate."—Antisep.; Astring.—*Uses:* Skin dis. & as disinf.

**Aluminum Arsenate Merck** (4)

$\text{Al}_2(\text{AsO}_4)_2$ .—Wh. powd.—*Sol.*, acids; sl. W.

**Aluminum Benzoate Merck** (10)

$\text{Al}_2(\text{C}_7\text{H}_5\text{O}_2)_6$ .—Wh. cryst. powd.—*Sol.*, v. sl. W.

**Aluminum Bichromate.**—see **Aluminum Dichromate**

**Aluminum Bifluoride Merck** (7)

$3(\text{Al}_2\text{F}_6) \cdot 4\text{H}_2\text{O} + 10\text{H}_2\text{O}$ .—Wh., cryst. powd.—*Sol.*, v. sl. W.

**Aluminum Borate Merck** (4)

$2\text{Al}_2\text{O}_3 \cdot \text{B}_2\text{O}_3 + 3\text{H}_2\text{O}$ .—Wh. granular powd.—*Sol. W.*—*Uses:* *Techn.*, in glass industry.

**Aluminum Boroformate Merck** (8)

Wh. cryst.; sweet, faintly astring. taste.—*Sol. W.*, dil. A.—Disinf. & Astring., like aluminum acetotartrate.—*Uses:* In throat dis. of children, in form of gargle.

**Aluminum Borotannate.**—see **Cutal**

**Aluminum Borotannotartrate.**—see **Cutal, Soluble**

**Aluminum Borotartrate.**—see **Boral**

**Aluminum Bromide Merck.**—Pure (5)

$\text{Al}_2\text{Br}_6 + 12\text{H}_2\text{O}$ .—Wh. to yellowish, deliquesce. cryst.—*Sol. W.*, A.,  $\text{CS}_2$ .

**do. Merck.**—Anhydrous (80)

Wh. to yellowish cryst. scales; fumes strongly in air.—*Uses:* In organic chemical synthesis.

**Aluminum Carbide**

Fr. aluminum salts w. carbon in electric furnace.— $\text{Al}_4\text{C}_3$ .—Greenish-gray, pulv. mass; decomp. w. water, with liberation of methane.—*Sol.*, hot. conc. nitric acid.

**Aluminum Carbonate** (8)

$\text{Al}_2(\text{CO}_3)_2$ .—Chalky-wh., eas. pulveriz., tastel. lumps.—Mild Stypt.; Astring.—*Uses:* Ocular affect., croup, diarrh., hemoptysis, cutan. erupt., hyperidrosis, &c.

**Aluminum Chloride Merck.**—Pure, cryst. (1)

$\text{Al}_2\text{Cl}_6 + 12\text{H}_2\text{O}$ .—Yellowish-wh., gran., cryst. powd.—*Sol. W.*, A., E.—*Uses:* Locomotor ataxia; also as disinfect.—*Dose*  $1\frac{1}{2}$ -4 grains (0.1-0.25 Gm.) sev. t. p. d.—*Caut.* Keep dry & from moist air.

**do. Merck.**—Sublimed, anhydrous.—For synthesis (4)

$\text{Al}_2\text{Cl}_6$ .—Yellowish, cryst. mass.—*Sol. W.*, A., E.—*Melt.* 180-185° C.—*Uses:* *Techn.*, for synthesis of organic compounds, accord. to Friedel and Crafts.—*Caut.* Keep dry and fr. moist air.

**Aluminum Citrate Merck** (4)

$\text{Al}(\text{C}_6\text{H}_5\text{O}_7) + \text{aq.}$ —Wh. powd.—*Sol. W.*

**Aluminum Dichromate Merck** (8)

$\text{Al}_2(\text{Cr}_2\text{O}_7)_3$ .—Red cryst.—*Sol. W.*

**Aluminum Diiodoparaphenolsulphonate.**—see **Soziodole-Aluminum**

**Aluminum Fluoride Merck.**—Pure (4)

React.-prod. alumina, fluorspar, & hydrochl. acid gas at h. temp.— $\text{Al}_2\text{F}_6$ .—Wh. powd.—Insol. W.—*Uses:* *Techn.*, in glass industry.

**Aluminum Gallate.**—see **Gallal**

**Aluminum Hydroxide Merck** (1)

(Aluminum Hydrate; Hydrated Alumina; Precipitated Aluminum Oxide; Aluminum Tri-

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



hydrate).—Fr. alum by precip. w. ammonia or alkali carbonates.— $\text{Al}_2(\text{OH})_6$ .—Wh., tastel., odorl., amorph. powd.; free fr. alkali.—*Sol.*, acids & alkalies.—Astring.—*Uses*: *Extern.*, for inflam. affect. of skin.—*Techn.*, in manuf. of lakes with organic dyes.—*Dose* 1–10 grains (0.06–0.6 Gm.).

**Aluminum Hydroxide Merck.**—Pure (2)  
do. Merck. — Highest Purity, free fr. (3)  
Alkali

**Aluminum Hypophosphite Merck** (20)  
 $\text{Al}_2(\text{PO}_2\text{H})_6$ .—Wh. powd.—*Sol.* W.

**Aluminum Iodide Merck.**—Anhydrous (70)  
React.-prod. of aluminum & iodine at h. temp. in sealed tubes.— $\text{Al}_2\text{I}_6$ .—Brown, cryst. pieces.—*Sol.*, eas. W.; A., carbon disulph.—Antisep.—*Uses*: Chem. organic syntheses.

*Aluminum Naphtholdisulphonate.*—see **Alumol**

**Aluminum Nitrate Merck.**—Pure, cryst. (1)  
 $\text{Al}_2(\text{NO}_3)_6 + 18\text{H}_2\text{O}$ .—Colorl., deliq. cryst.—Decomp. at  $150^\circ\text{C}$ .—*Sol.* W.

do. Merck.—Pure, dried (3)  
*Uses*: *Techn.*, in leather industries.

do. Merck.—II (1)

**Aluminum Oleate Merck** (3)  
 $\text{Al}_2(\text{C}_{18}\text{H}_{35}\text{O}_2)_6$ .—Wh. to yellowish, tenacious mass.—*Sol.* A., E., B., oleic acid.—Antisep.—*Uses*: *Extern.*, skin dis.

**Aluminum Oxalate Merck.**—Pure (3)  
 $\text{Al}_2(\text{C}_2\text{O}_4)_3 + \text{H}_2\text{O}$ .—Wh. powd.—*Sol.*, in strong acids; insol. W., A.

*Aluminum Oxide, Precipitated.*—see **Aluminum Hydroxide**

**Aluminum Oxide Merck.**—Reagent.—For tannin determination by Wislicenus' method (20)

$\text{Al}_2\text{O}_3$ .—Wh., v. bulky, hygrosc. powd.—*Tests*: (*Hg*; *Al*) moisten w.  $\text{H}_2\text{O}$ —no gray color; no glob. of  $\text{Hg}$  or particles of *Al* should be visible under microscope.—*Uses*: Partic. adapted for determ. tannin without hide powd.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Aluminum Palmitate Merck.**—Pure (2)  
 $\text{Al}_2(\text{C}_{16}\text{H}_{33}\text{O}_2)_6$ .—Yellowish-wh., gran. masses w. unct. touch.—*Sol.*, oil turpent., & petroleum, but only when freshly made; insol. W., A.

do. Merck.—Crude (1)  
*Uses*: *Techn.*, for thickening lubricants, waterproofing fabrics, etc.

*Aluminum Paraphenolsulphonate.*—see **Aluminum Phenolsulphonate**; **Sozal**

**Aluminum Phenolsulphonate Merck** (5)

(Aluminum Paraphenolsulphonate, or Sulphocarbonate).— $\text{Al}_2(\text{C}_6\text{H}_4\text{HSO}_3)_6$ .—Reddish-wh. powd.; weak phenol odor; str'ly astring. taste.—*Sol.* W., A., G.—Antisep.—*Uses*: Inst. of iodof. Espec. recom. in cystitis & suppur. sores.

**Aluminum Phosphate Merck** (3)

$\text{Al}_2(\text{PO}_4)_3$ .—Wh. powd.—*Sol.*, acids.—*Uses*: As cement in admixt. w. plaster-of-Paris and sodium (or potassium) silicate.

*Aluminum Rhodanide.*—see **Aluminum Sulphocyanate**

**Aluminum Salicylate Merck** (6)

$\text{Al}(\text{C}_6\text{H}_4\text{OHCOO})_3$ .—Reddish-wh. powd.—*Sol.*, ammonia and alkalies; insol. W. & A.—Antisep.—*Uses*: Dust. powd.: nasal & pharyngeal catarrh & ozena.

**Aluminum Salicylate Ammoniated**

Yellowish-wh. powd.—*Sol.* 9 W.—Astring.; Antisep.—*Uses*: Inflam. of nose & throat; insufflation; paint w. 20% solut. in equ. parts G. & W.

**Aluminum Silicate Merck.**—Pure (3)

$\text{Al}_2\text{Si}_2\text{O}_6$ .—Wh. mass.—Insol. W.; acids.—*Uses*: *Techn.*, in glass industry.

**Aluminum Silicofluoride Merck.**—Pure (8)

$\text{Al}_2\text{F}_6 \cdot 3\text{SiF}_4$ .—Wh. powd.—*Uses*: *Techn.*, in glass industry, in manuf. of enamels and artif. gems

*Aluminum Sozoiodolate.*—see **Sozoiodole-Aluminum**

**Aluminum Stearate Merck.**—Pure (4)

$\text{Al}(\text{C}_{18}\text{H}_{35}\text{O}_2)_3$ .—Wh. or grayish-wh. powd.—*Sol.*, warm A., oil turpentine, B., hot W.

**Aluminum Sulphate Merck.**—Highest Purity, Medicinal, cryst. (1)

$\text{Al}_2(\text{SO}_4)_3 + 18\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* 1.2 W.—*Uses*: As of alum.

do. Merck.—Pure (1)

Wh. cryst.; odorl.; sw., astring. taste.—*Sol.* 1.2 W.—*Extern.* Antisep.; Caustic; Astring.—*Uses*: Fetid ulc. & fetid discharges; enlarged tonsils, scrof. & cancer. ulc.; endometr.; nasal polypi, &c.—*Appl.* 1–5% solut.; or conc. solut.

do. Merck.—Double refined, free fr. Iron (1)  
Yellowish-wh. to bluish-wh., cryst. mass.—*Uses*: *Techn.*, in leather industry, and paper manuf.—*Caut.* Keep dry.

do. Merck.—Commercial (1)

**Aluminum Sulphide Merck** (10)

Fr. heating aluminum in presence of sulphur.— $\text{Al}_2\text{S}_3$ .—Yellow cryst.; bitter taste.—Decomp. by water.

*Aluminum Sulphocarbonate.*—see **Aluminum Phenolsulphonate**; **Sozal**

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacal; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

**Aluminum Sulphocyanate Merck** (6)  
(Aluminum Sulphocyanide; Aluminum Rhodanide).— $\text{Al}_2(\text{CNS})_6$ .—Yellowish powd.—*Sol.*, v. sl. *W.*—*Uses.* Techn. in textile industry.—*Caut.* Keep dry & fr. air.

**Aluminum Tannate Merck** (4)  
Light brown powd.—Antiseptic; Styptic. Astringent.

**Aluminum Tannotartrate Merck** (20)  
Yellowish-wh. lamellæ or powd.; str. astring. taste.—*Sol.* 2 *W.*—Astring.; Antisep.—*Uses.* Rhinological practice, for catarrhal troubles. Can be insufflated plain or mixed; or applied in a gargle.

**Aluminum Tartrate Merck.—Pure** (7)  
Wh. powd.—*Sol.*, ammonia and acids; insol. *W.*  
**Aluminum Trihydrate.**—see **Aluminum Hydroxide**

**Aluminum & Ammonium Chloride Merck** (10)  
Double salt, fr. aluminum chloride by act. dry ammonia followed by heat, in stream of hydrogen.— $\text{Al}_2\text{Cl}_6 \cdot 2\text{NH}_4\text{Cl}$ .—Wh. cryst.—*Sol.* *W.*

**Aluminum & Ammonium Sulphate Merck** (1)  
(Ammonia Alum).— $\text{Al}_2(\text{NH}_4)_2(\text{SO}_4)_4 + 24\text{H}_2\text{O}$ .—Wh., transp., regular cryst.; pecul. styp., sweet taste.—*Sol.* *W.*—*Melt.* 92° C.—Astring.; Emet.; Purg.; Styp.; Diuret.—*Uses.* Purifying drinking-water.—*Techn.*, in baking powders, galvanostegia, etc.—*Incomp.*, iron, zinc, alkalies.

**Aluminum & Caesium Sulphate Merck** (80)  
(Caesium Alum).— $\text{Al}_2\text{Cs}_2(\text{SO}_4)_4 + 24\text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.* *W.*

**Aluminum & Caesium & Rubidium Sulphate Merck** (40)  
(Caesium-Rubidium Alum).— $\text{Al}_2\text{CsRb}(\text{SO}_4)_4 + 24\text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.* *W.*

**Aluminum & Potassium Chloride Merck** (5)  
 $\text{Al}_2\text{Cl}_6 \cdot 2\text{KCl}$ .—Wh., cryst. powd.—*Sol.* *W.*

**Aluminum & Potassium Paraphenolsulphonate Merck** (5)  
Combination of paraphenolsulphonic acid w. potass. aluminate.— $\text{Al}_2\text{K}_2(\text{C}_6\text{H}_4\text{OHSO}_3)_8$ .—Wh. to reddish cryst.—*Sol.* *W.*—Antisep.; Astring.; Styptic.—*Uses.* Indol. ulcers and in mouth-washes.—*Appl.*, in 5–20% solut.

**Aluminum & Potassium Salicylate.**—see **Potassium & Aluminum Salicylate**

**Aluminum & Potassium Sulphate Merck.—Highest Purity, Medicinal, cryst. or powd.** (1)  
(Alum [*U. S. P.*]; Potassium, Alum).— $\text{Al}_2\text{K}_2(\text{SO}_4)_4 + 24\text{H}_2\text{O}$ .—Large, colorl., octah., or cubic cryst., or v. fine, wh. powd.; astring. taste; acid react.—*Sol.* *G.*, 9 *W.*, at 25° C.; 0.3 boil. *W.*; insol. *A.*—*Melt.* 92° C.—Astring.; Irrit.; Emetic; Styp.—*Uses.* Intern., night sw., diar., painters' colic, nerv. colic; somet. as emetic.—*Extern.*,

hemorrhage, gleet, gonorr., epist.—*Dose* 5–15 grains (0.3–1 Gm.) 3 to 4 t. p. d., in water; emetic, 1–2 teaspoonfuls.—*Appl.*, in subste., cone. solut., or 1–5% solut.—*Incomp.*, alkalies, lead acetate, &c.

**Aluminum & Potassium Sulphate Merck.—Powder or cryst.** (1)

*Uses.* In dyeing, printing fabrics, manuf. dyes, manuf. paper, vegetable glue, marble cement, porcelain cement, & in tanning, &c.

**do. Merck.—Dried (Burnt)** (1)  
Dehydr., cryst. potassium alum.— $\text{Al}_2\text{K}_2(\text{SO}_4)_4$ .—Wh., granular, powd.; odorl.; attracts moist. fr. air.—*Sol.* 20 *W.*, at 15° C.—Eschar.; Astring., &c.—*Uses.* Destroy exub. granul., & as alum, cryst.—*Caut.* Keep well stoppered, & from air.

**do. Merck.—Pencils**  
*Uses.* Remov. exub. granulations.

**do. Merck.—Pencils mounted in wood**  
**Aluminum & Potassium Sulphocarbonate.**—see **Aluminum & Potassium Phenolsulphonate**

**Aluminum & Rubidium Sulphate Merck** (10)  
(Rubidium Alum).— $\text{Al}_2\text{Rb}_2(\text{SO}_4)_4 + 24\text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.*, hot *W.*

**Aluminum & Sodium Chloride Merck** (4)  
By fusing aluminum and sodium chlorides.— $\text{Al}_2\text{Cl}_6 \cdot 2\text{NaCl}$ .—Wh. to yellowish, cryst., hygro. mass.—*Sol.*, readily in *W.*—*Uses.* Techn., in leather industry.

**Aluminum & Sodium Silicate** (6)  
Fr. adding aluminum hydroxide to boil. solut. of sod. silicate & hydroxide.— $\text{Na}_2\text{SiO}_3 \cdot \text{Al}_2(\text{SiO}_3)_3$ .—*Uses.* Surg. dress., spinal jackets, splints, &c.

**Aluminum & Sodium Sulphate Merck.—Pure, cryst.** (1)  
(Sodium Alum).— $\text{Al}_2\text{Na}_2(\text{SO}_4)_4 + 24\text{H}_2\text{O}$ .—Colorl., transp., octah. cryst.—*Sol.* *W.*

**Aluminum & Zinc Sulphate Merck** (2)  
(Zinc Alum).— $\text{Al}_2(\text{SO}_4)_3 \cdot \text{ZnSO}_4$ .—Wh., cryst. powd.—*Sol.* *W.*—*Uses.* Caustic.

**do. Merck.—Sticks** (2)

**Alumol** (10)  
(Aluminum Naphtholdisulphonate).—React. prod. betanaphthol-bariumdisulphonate & aluminum sulph. in mole. prop.— $\text{Al}_2(\text{C}_{10}\text{H}_7\text{OH})_2[\text{SO}_3]_2$ .—Wh. powd.; solut. fluoresces blue; darkens on expos.—*Sol.* *W.*, *G.*; sl. in *A.*—Astring.; Antisep.—*Uses.* Extern., 0.5–2% solut. for dress. suppur. wounds & absc.; 4% solut. in ac. blennor.; 0.25–1% solut. as gargle; 1% inj. for gonorr.; also in gynecol. practice; 10–20% solut. as caustic.—*Incomp.*, alkalies.

**Alveloz**  
Inspis. juice Euphorbia heterodoxa, Muell. Arg.—Fibrin-solvent & Mild Caust.—*Uses.* Cancer & sph. ulc.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S on your orders**

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Alypin**

(80)

(Benzoyltetramethylaminoethylisopropylalcohol Hydrochloride).— $C_2H_5(CH_2.N:[CH_3]_2)CO-(CH_2.N:[CH_3]_2.HCl).CO.C_2H_5$ .—Wh., cryst., bitter powd.—*Sol.* A., W.—*Melt.* 169° C. (when dried at 100° C.).—*Loc.* Anesth.—*Uses:* Laryngology, ophthalmology, dentistry, &c. *Soluts.* neutral, & may be sterilized.—*Appl.* 2–10% solut.

**Alypin Nitrate**

(80)

Alypin salt intended for use where the simultaneous exhibition of silver nitrate is desired.

*Amadou*.—see **Polyporus**

*Amalgams*.—see under **Copper, Sodium, Zinc, Tin, & Zinc-Tin**

*Amiline*.—see **Choline**

**Amapa-Milk**

Milky sap of the bitter bark of *Plumeria fallax*, Müll. Arg. Apocynaceae.—*Habit.*: Brazil (Para and Amazonas).—*Etymol.*: "Amapa" is the Brazilian name of the plant.—*Uses:* Antimalarial; Vermif.—*Dose:* Children, 2 ℥ (0.12 Cc.) for each year of age.—*Extern.*, in cancerous sores.

**Amarine Merck**.—Cryst.

(75)

(Triphenyldihydroglyoxalin; Isohydrobenzamide).— $C_{21}H_{18}N_2$ , or  $(C_6H_5.C.NH)_2CH.C_6H_5$ .—Lustr. wh. cryst.; tastel. w. bitter after-taste.—*Sol.* A., E.—*Melt.* 113° C.—*Caut.* Poison!

**Ambergris**

(200–600)

Morbid(?) concretion fr. intest. tract of the sperm whale, *Physeter* (Catodon) macrocephalus, L. Cetaceae.—*Habit.*: Tropical seas or sea shores.—*Etymol.*: Fr. "anbar" the Arabic name for the drug.—Irreg. gray or grayish-brown (or black), streaked or mottled, waxy, opaque masses; peculiar odor; sl't. taste.—*Sp. Gr.* 0.8–0.92.—*Melt.*, 60–62.5° C.; inflammable; alm. compl. volat. on heat.—*Sol.* E., C., hot A., fats, volat. oils; insol. solut. KOH.—*Constit.*: Fatty oil; ambrein (cholesterin, abt. 80–85%); benzoic acid.—*Antihyst.*; *Aphrod.*; *Antispasm.* & *Stim.*—*Uses:* Chiefly in perfumery as tincture and essence for fixing delicate odors.—*Doses:* 5–20 grains (0.3–1.3 Gm.).—*Tinct.*, 10–30 ℥ (0.6–2 Cc.).

*Amber Seed.* } —see **Abelmoschus**  
*Ambrette.* }

*American Alder*.—see **Alnus Serrulata**

*American Hellebore*.—see **Veratrum**

*American Ipceae*.—see **Gillenia**

*American Ivy*.—see **Ampelopsis**

*American Larch*.—see **Larix**

*American Spikenard*.—see **Aralia**

*American Veratrum*.—see **Veratrum**

*Amianthus*.—see **Asbestos**

*Amidin*.—see **Holocaine Hydrochloride**

*Amidoacetanilide, Para*.—see **Phenylenediamine, Para**

**Amidoazobenzene Merck**

(50)

(Aniline Yellow; Paramidoazobenzene; Paramidodiphenylimide).—Intermed. product obtained in manuf. of Acid Yellow and indulin.— $C_{12}H_{11}N_3$ , or  $C_6H_5.N_2.C_6H_4.NH[1:4]$ .—Yellow. *cryst.*—*Sol.* A., E.—*Melt.* 126° C.—*Boil.* 360° C.

**Amidoazobenzene Hydrochloride Merck**

(20)

(Spirit Yellow).— $C_{12}H_{11}N_3.HCl$ .—Steel-blue *cryst.*—*Sol.*, sl. W. w. yellow color.—*Uses:* Coloring lacquers.

*Amidoazobenzeneazobetanaphthol*.—see **Sudan Red III, Fat Dye**

**Amidoazotoluene (Ortho-) Merck**

(80)

(Toluzotoluidine).—Fr. orthotoluidine by nitrous acid.— $C_{14}H_{15}N_3$ , or  $CH_3.C_6H_4.N:N.C_6H_3(CH_3).NH_2$ .—Red *cryst.*—*Sol.* A.—*Melt.* 100° C.

*Amidobenzene* (or, -ol).—see **Aniline**

**Amidocresol (Para-) Hydrochloride Merck**

(80)

Deriv. of cresol, combined with hydrochl. acid.— $C_7H_9ON$ , or  $C_6H_3(CH_3)OH(NH_2)[1:2:6]$ .—Wh. to grayish-wh. *cryst.*—*Sol.* W., A., E.—*Melt.* 159–161° C.

*Amidoethane*.—see **Ethylamine**

*Amidol* = **Diaminophenol Hydrochloride**.—see **Diaminophenol Hydrochloride**

*Amidomericuric Chloride*.—see **Mercury Ammoniated**

*Amidomethane*.—see **Methylamine**

**Amidophenol (Ortho-) Hydrochloride Merck**

(30)

(Oxaniline Hydrochloride).— $C_6H_8NOCl$ , or  $C_6H_4(NH_2)(OH)HCl$ .—Redd. *cryst.*—*Sol.* A., W.

**Amidophenol (Para-) Merck**.—Purest, *cryst.*

(10)

(Para-amidophenol).—Fr. paranitrophenol by reduct.— $C_6H_7NO$ , or  $C_6H_4(NH_2)(OH)[1:4]$ .—*Cryst. powd.*—*Sol.* W., A.; darkens on expos.—*Melt.* 184° C.—*Uses:* Textile dyeing; and in photography as a developer.

do. Merck.—Technical, *cryst.*

(4)

**Amidophenol (Para-) Hydrobromide Merck**

(100)

$C_6H_8NOBr$ , or  $C_6H_4(NH_2)(OH)HBr$ .—*Cryst.*—*Sol.* W., A.

**Amidophenol (Para-) Hydrochloride Merck**

(4)

$C_6H_8NOCl$ , or  $C_6H_4(NH_2)(OH)HCl$ .—*Cryst.*—*Sol.* W., A.

do. Merck.—Highest Purity

(12)

**Amidophenol (Para-) Salicylate Merck**

(75)

$C_{13}H_{14}NO_3$ , or  $C_6H_4(NH_2)(OH)C_7H_5O_3$ .—Wh. *powd.*—*Sol.* A.

*Amidolettramethylamidodiphenylmethane Hydrochloride*.—see **Auramine Yellow**

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

**Amidourea Hydrochloride.**—see **Semicarbazide Hydrochloride**

**Aminoacetophenetidine.**—see **Phenocoll**

**Aminophatrimethylbenzene.**—see **Cumidine, Pseudo-**

**Aminoazobenzeneazobetanaphthol.**—see **Sudan Red III, Fat Dye**

**Aminodimethylbenzene** (or, -ol).—see **Xylidine**

**Aminoethane.**—see **Ethylamine**

**Aminoform.**—see **Hexamethylenamine**

**Aminomalonylurea.**—see **Uramil**

**Aminoxylene** (or, -ol).—see **Xylidine**

**Ammonia Alum.**—see **Aluminum & Ammonium Sulphate**

**Ammonia Anhydrous.**—Liquid (1)

Ammonia gas liquefied by cold & pressure.— $\text{NH}_3$ .—Liq. produc. great cold by its own evap. All properties of amm. intensified.—*Boil.* 38.5° C. at 760 Mm.—*Uses:* Techn., for freezing purposes, &c.—Sold in str. iron cylinders.—*Caut.* Great care in storing or opening.

**Ammonia-Carmine.**—see **Beale's Ammonia-Carmine**

**Ammonia Water.**—see **Water Ammonia**

**Ammoniac** (1)

(Gum Ammoniac).—Gum-resin from Dorema Ammoniacum, Don. Umbelliferae.—*Habit.*: Persia and Northern India; also Southern Siberia.—*Etymol.*: "Ammoniacum," Lat., prob'ly corruption of the Lat. "armeniaceum," indigenous to Armenia.—Irreg. rounded tears, yellowish outside and whitish within, opaque, brittle when cold, but soft when warm; also masses, darker in color and less homogen.; peculiar odor; sl. sweetish, bitter, somew. acrid taste.—*Sp. Gr.* 1.207.—*Constit.*: Volat. oil; resin; salicylic acid; resinotannol (Tschirch); gum; ferulic acid.—*Sol.*, partly in W., A., E., vinegar, and alkali. solut.; forms emuls. with W.—*Stim.*; Expector.; Diur.; Diaph.; Emmen.—*Uses:* Intern., chronic catarrh, asthma, colds, etc.—*Extern.*, indol. tumors & white swelling of joints; also as plaster.—*Techn.*, ingred. in poreel. cements.—*Dose* 5–15 grains (0.3–1 Gm.) in pill or emuls.

**Ammoniated Iron.**—see **Ammonium Chloride, Ferrated**

**Ammoniated Mercury.**—see **Mercury Ammoniated**

**Ammonio-cupric Salts.**—see **Copper & Ammonium Salts**

**Ammonio-ferric Alum.**—see **Iron & Ammonium Sulphate, Ferric**

**Ammonio-ferrous Sulphate.**—see **Iron & Ammonium Sulphate, Ferrous**

**Ammonium Acetate Merck.**—Cryst. (1)

Fr. glacial acetic acid satur. w. dry amm. gas.—*Etymol.*: Ammonium, fr. "sal ammoniacum,"

i.e., salt of Ammon, because this was first discovered in the camels dung at the temple of Jupiter Ammon in Lybia. According to others derived fr. "sal armeniacum" because first introduced into commerce by Armenian merchants.  $\text{NH}_4\text{C}_2\text{H}_3\text{O}_2$  or,  $\text{CH}_3\text{COONH}_4$ .—Wh. cryst.—*Sol.*, all prop. W.—Diaph.; Refrig.; Antipyr.—*Uses:* Scarlet fever, cyst; in febr. dis., w. carbonic acid water; alcoh. poisoning; also as antid. to formaldehyde intoxication.—*Dose* 15–30 grains (1–2 Gm.) 6 or 8 t. p. d., in sweet. carbonic-acid W.—*Caut.* Keep well stoppered.

**Ammonium Acetate.**—Solution.—U. S. P. (1)  
(Spirit of Mindererus).—Not less than 70% of the salt.—Colorl., neutral, or faintly acid, liq.—Diaph.; Antipyr.; Diur.—*Uses:* Intern., fevers, dysmenor., mumps, scarlat., &c.—*Extern.*, as collyrium w. laudanum in chronic ophthalmia, & as lotion on contusions, porrigo, & o. skin dis.—*Dose* 60–720  $\text{ij}$  (4–15 Cc.).

**do.**—Concentrated Solution.—N. F. (1)

Abt. 3 times strength of the U. S. P. solut.—*Dose*  $\frac{1}{3}$  that of preceding.

**Ammonium Acetate Merck.**—Reagent (2)

$\text{CH}_3\text{COONH}_4$ .—Wh., hygrosc., cryst. mass.—*Sol.*, eas. A., W.—*Tests:* (Res.) ignite 3 Gm.—none wghble.—(Cl) 1 Gm.+20 Cc.  $\text{H}_2\text{O}$ +5 Cc.  $\text{HNO}_3$  (sp. gr. 1.153)+solut.  $\text{AgNO}_3$ —no turb.—( $\text{H}_2\text{SO}_4$ ) 1 Gm.+20 Cc.  $\text{H}_2\text{O}$ +1 Cc.  $\text{HCl}$ +solut.  $\text{BaCl}_2$ —no ppt. ( $\text{BaSO}_4$ ) within 12 hrs.—(*Heavy Metals; Earths*) 5 Gm.+100 Cc.  $\text{H}_2\text{O}$ +aqu.  $\text{H}_2\text{S}$ —no react.; add  $\text{NH}_4\text{OH}$  (sp. gr. 0.96) & solut.  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ —no color or turb.—*Uses:* Determ. Pb & Fe.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Ammonium Anacardate Merck** (75)

(Acid Ammonium Anacardate).—Amm. compound of beta & delta resinous acids of Anacardium occidentale, L. (Cashew nut).—Brown, viscid mass.—*Sol.* A.—Decomp. by heat w. liberat. of amm.—*Uses:* Hair dye.

**Ammonium Anacardate, Acid.**—see **Ammonium Anacardate**

**Ammonium Arsenate Merck.**—Cryst. (4)

$(\text{NH}_4)_2\text{HASO}_4$ .—Wh. cryst.—*Sol.* W.—Alter.—*Uses:* Chiefly in skin dis.—*Dose*  $\frac{1}{20}$  grain (0.003 Gm.) grad'y increased, 3 t. p. d., in much water.

**Ammonium Arsenite Merck** (4)

$\text{NH}_4\text{AsO}_2$ .—Wh. powd.—*Sol.* W.

**Ammonium Benzoate Merck.**—Fr. Natural Benzoic Acid (4)

$\text{NH}_4\text{C}_7\text{H}_5\text{O}_2$ .—Wh. cryst.; somet. slight benzoïn odor; saline, bitter taste.—*Sol.* 5 W., 28 A.—Expector.; Antisep.; Antipyr.; Diur.; Alter.—*Uses:* Bronch., asthma, &c.; gastro-intest. dis.;

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S on your orders**

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



rheumat., gout, nephritis, &c.—*Dose* 10–30 grains (0.6–2 Gm.) 3 or 4 t. p. d., in syrup or W.—*Caut.* Keep well stop. Loses amm. on expos.

**Ammonium Benzoate Merck.—Fr. Toluene-benzoic Acid** (2)

Wh. cryst. or scales.

do. Merck.—Fr. Urine-benzoic Acid (9)

*Ammonium Biboate.*—see **Ammonium Borate**

**Ammonium Bicarbonate Merck.—Pure, cryst.** (1)  
(Acid Ammonium Carbonate; Ammonium Hydrogen Carbonate).— $\text{NH}_4\text{HCO}_3$ .—Large, transp., trimet. cryst.—*Sol.* W., A.—Decomp. at 60° C.—*Antacid*; *Stim.*—*Uses:* Acid ferment. of stom.; stim. in depressed condit.—*Dose* 5–15 grains (0.3–1 Gm.).

*Ammonium Bichromate.*—see **Ammonium Dichromate**

**Ammonium Bifluoride Merck** (3)

(Hydrogen Ammonium Fluoride; Acid Ammonium Fluoride).— $\text{NH}_4\text{F} \cdot \text{HF}$ .—Colorl. cryst.—*Sol.* W.—*Uses:* In chem. analysis for decompos. silicates.—*Caut.* Keep well closed.

do. Merck.—Free fr. Arsenic (1)

$\text{NH}_4\text{F} \cdot \text{HF}$ .—*Uses:* Etch. glass; improperly inst. of Pasteurizing for prevent. second. fermentation & cloudiness in export-beer and wine in quant. of 2 Gm. per hectoliter; purifying and cleansing various parts of beer-testing apparatus, tubes, etc., in 0.4% aq. solut.

**Ammonium Bimalate Merck.—Cryst.** (40)

$\text{NH}_4\text{HC}_4\text{H}_4\text{O}_5$ .—Wh. cryst.—*Sol.* W.

**Ammonium Binoxalate Merck.—Highest Purity** (2)

(Ammonium Bioxalate; Acid Ammonium, or Ammonium Hydrogen, Oxalate).— $\text{NH}_4\text{HC}_2\text{O}_4 + \text{H}_2\text{O}$ .—Colorl., trimet. cryst.—*Sol.* W.—*Uses:* Remov. ink stains & ecchymotic spots on face.

do. Merck.—Technical (1)

Wh., cryst. powd.

**Ammonium Biphosphate Merck.—Pure** (2)

(Ammonium Phosphate, Monobasic; Acid Ammonium Phosphate).— $(\text{NH}_4)\text{H}_2\text{PO}_4$ .—Wh., transp., monocl. prisms.—*Sol.* W.—*Uses:* As baking powd. in admixt. w. sod. bicarbonate.

**Ammonium Bisulphate Merck.—Pure, cryst.** (1)

(Ammonium Hydrogen Sulphate; Acid Ammonium Sulphate).— $\text{NH}_4\text{HSO}_4$ .—Colorl. cryst.—*Sol.* W.—*Dose* 10–30 grains (0.6–2 Gm.).

**Ammonium Bisulphite Merck** (6)

$\text{NH}_4\text{HSO}_3$ .—Wh., cryst.—*Sol.* W.—*Antisep.*—*Uses:* Intern., ferment. dyspep.—*Extern.*, wash in sore mouth & skin affect.—*Dose* 10–30 grains (0.6–2 Gm.).

**Ammonium Bitartrate Merck** (4)

(Acid Ammonium Tartrate).— $\text{NH}_4\text{HC}_4\text{H}_4\text{O}_6$ .—Wh. cryst.—*Sol.* W.—*Uses:* Baking powd.

**Ammonium Borate Merck.—Cryst.** (4)

(So-called “Ammon. Biboate”).— $(\text{NH}_4\text{HB}_4\text{O}_7) + 3\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* 12 W.—*Uses:* Renal colic, chron. cyst., &c.; w. codeine in pulm. tuberc.—*Dose* 10–20 grains (0.6–1.3 Gm.) every hour in W. with licorice.—*Caut.* Stopper well.

**Ammonium Borocitrate Merck** (4)

Wh., cryst. powd.—*Sol.* W.—*Uses:* As of ammonium borate.

**Ammonium Bromide Merck** (1)

$\text{NH}_4\text{Br}$ .—Wh., cryst. powd., or colorl. cryst.; pung., saline taste.—*Sol.* W., A.—*Volat.* h. temp. without melting.—*Nerve Sed.*—*Uses:* Epilepsy, delir. trem., nerv. headache, &c.; in photography for making silver bromide.—*Dose* 15–30 grains (1–2 Gm.) several t. p. d., in dil. solut.—*Incomp.*, acids, acid salts, spirit of nitrous ether.

**Ammonium Camphorate Merck** (35)

(Acid Ammonium, or Ammonium Hydrogen, Camphorate; Ammonium Bicamphorate).— $\text{NH}_4\text{HC}_{10}\text{H}_{14}\text{O}_4 + 3\text{H}_2\text{O}$ .—Wh., cryst. powd.—*Sol.* W.—*Stim.*, *Nerve Sed.*—*Dose* 1–3 grains (0.06–0.2 Gm.).

**Ammonium Carbamate Merck** (20)

(“Anhydride” of Ammonium Carbonate; Ammonium Carbamate).—*React.*-prod. carbon dioxide & ammonia gas.— $\text{NH}_4\text{NH}_2\text{CO}_2$ .—Wh., v. volat. cryst. powd.—*Sol.* W.—*Stim.*

*Ammonium Carbamate.*—see **Ammonium Carbamate**

*Ammonium Carbazolate.*—see **Ammonium Picrate**

*Ammonium Carbolate.*—see **Ammonium Phenate**

**Ammonium Carbonate Merck.—Lumps, cubes, or powd.** (1)

(“Hartshorn”).—*React.*-prod. of heated amm. salts & chalk.—Mist. of acid amm. carbonate,  $\text{CO}(\text{OH})\text{ONH}_4$ , & amm. carbamate,  $\text{CO}(\text{NH}_2)_2$ .—Wh., hard, transl., striated masses; str. amm. odor; sharp, saline taste; ellor. in air.—*Sol.* 5 W. at 15° C. & in 4 W. at 25° C.; partly A.; 5 G.; decomp. by hot W.—*Volat.* compl. w. heat.—*Rubef.*; *Card. Stim.*; *Expector.*, &c.—*Uses:* Intern., syncope, heart fail., pneum., phth., & hyst.—*Extern.*, rubefacient.—*Techn.*, in separation of cacao constituents, baking powders, washing woens, dyeing, manuf. of rubber articles, etc.—*Dose* 5 grains (0.3 Gm.) ev. 2 hrs.—*Incomp.*, acids & acid salts.—*Caut.* Keep well stoppered.

**Ammonium Carbonate Merck.—Reagent** (2)

$(\text{NH}_4)\text{HCO}_3$ .— $(\text{NH}_4)\text{NH}_2\text{CO}_2$ .—Mist. ammonium acid carbonate & amm. carbamate.—Cryst., wh., transl. mass; effloresc. & bec. opaque.—*Tests:* (Res.) ignite 5 Gm. — none wghble.— $(\text{H}_2\text{SO}_4)$  5 Gm. + 100 Cc.  $\text{H}_2\text{O}$  + 10 Cc.  $\text{HCl}$  (sp gr. 1.124), boil, & add solut.  $\text{BaCl}_2$ —no ppt. ( $\text{BaSO}_4$ ) within 12 hrs.—( $\text{Cl}$ ;  $\text{H}_2\text{S}$ ) 2 Gm.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

+ 50 Ce.  $H_2O$  + 10 Ce.  $HNO_3$  (sp. gr. 1.153) + solut.  $AgNO_3$ —no turb.—(*Heavy Metals*) 5 Gm. + 30 Ce.  $H_2O$  + 30 Ce. dil.  $C_2H_5O_2$  +  $NH_4OH$  (sp. gr. 0.96) + few drops aq.  $(NH_4)HS$ —no ppt. & no green or brown color.—( $NH_4SCN$ ) 1 Gm. + 20 Ce.  $H_2O$  + 2 Ce.  $HCl$  (sp. gr. 1.124) + 1 drop solut.  $FeCl_3$ —no red color.—(*Tar Bases*) 1 Gm. + 5 Ce.  $HNO_3$  & evap. on W.-bath to dryness—residue must be pure white.—*Uses*: Separ. earths fr. Mg, As fr. Sb, &c.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Ammonium Carbonate, "Anhydride."**—see **Ammonium Carbamate**

**Ammonium Carminate Merck** (75)

Mixt. of carmine and ammonia.—*Uses*: Dyeing microscopic specimens.—See also Hoyer's Ammonium Carminate.

**Ammonium Chloride Merck**—Pure, granular or powd. (1)

(Muriate of Ammonia; Sal Ammoniac).— $NH_4Cl$ .—Wh., cryst. powd.; odor.; cool saline taste.—*Sol.* 3 W., 5 G. at  $15^\circ C$ ; (in 3 W., 80 A., & 5 G., at  $25^\circ C$ ; 1 boil. W.—U. S. P.).—Sublimes completely.—*Stim.*; *Expector.*; *Anticœur*.—*Uses*: Bronch. affect., hepatic congest., pelvic cellul., muse. rheumat., neural., chronic gland. enlarg., hemierania, senile gangr., dysmenor., leucor., &c.—*Dose* 5–30 grains (0.3–2 Gm.) sev. t. p. d.

*Note*.—Being free fr. all objectionable impurities, this salt is to be preferred for internal use.

**do. Merck**.—Purified, lumps or powd. (1)

Wh. or greenish-wh., transl., tough, fibr., cryst. mass, or fine powd.; pung., saline taste.—*Uses*: Techn., in dyeing, printing fabrics, soldering, tinning, galvanizing iron, electric batteries, preparing o. ammonium salts, etc.

**do. Merck**.—Semipurified (1)

**Ammonium Chloride Merck**.—Reagent (1)

$NH_4Cl$ .—Wh., cryst. powd.—*Sol.*, eas. W.—*Tests*: (Res.) gently ignite 3 Gm.—none wghble.—(*Phosphate*; *Arsenate*) 5 Gm. + 20 Ce.  $H_2O$  + 3 Ce. magnesia mixt. + 10 Ce.  $NH_4OH$  (sp. gr. 0.96)—no ppt. within 12 hrs.—(*Heavy Metals*; *Earths*) treat 20 Ce. each of 1:20 aq. solut. w. a: aq.  $H_2S$ ; b:  $NH_4OH$ ; c: aq.  $(NH_4)HS$ ; d:  $(NH_4)_2C_2O_4$ —no visible change in any case.—( $H_2SO_4$ ) 10 Ce. of 1:10 solut. + few drops  $HCl$  + solut.  $BaCl_2$ —no ppt. ( $BaSO_4$ ) within 12 hrs.—( $NH_4SCN$ ) 1 Gm. + 10 Ce.  $H_2O$  + few drops  $HCl$  + 1 drop solut.  $FeCl_3$ —no red color.—(*Tar Bases*) evap. 1 Gm. + 5 Ce.  $HNO_3$  (sp. gr. 1.153) on W.-bath to dryness—res. pure white.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Ammonium Chloride Ferrated Merck** (1)

(Ammoniated Iron; Ammonio-chloride of Iron).—2.5% ferric chloride & 97.5% amm. chloride.—Reddish-yellow powd.—*Sol.* W., diluted A.—*Aper*; *Chol.*—*Uses*: Rachitis, amenor., serof., chlor., epilepsy, catarrh, &c.—*Dose* 4–12 grains (0.25–0.75 Gm.).—*Caut.* keep well stoppered.

**Ammonium Chromate Merck**.—Neutral, pure (3)

$(NH_4)_2CrO_4$ .—Yellow need.; evolve amm. in air.—*Sol.* W.

**Ammonium Citrate Merck** (2)

(Neutral Ammonium Citrate).— $(NH_4)_3C_6H_5O_7$ .—Wh. powd.—*Sol.* W.—*Caut.* keep from air

**do.**—Solution, stronger.—N. F.

Abt. 66% of the salt.—Colorl., transp. liq.—*Diaph.*; *Antipyr.*; *Diur.*—*Uses*: Fevers, cystitis, & lithiasis. Add. of 4 vol. W. makes solut. of amm. citrate of the B. P.—*Dose* 60–180  $\mathcal{M}$  (4–30 Ce.).

**Ammonium Citrate Merck**.—Reagent.—Solution.

—According to P. Wagner for determining citrate-soluble  $H_3PO_4$  in Thomas slag (1)

Clear, colorl. liq.; 150 Gm. citric acid & 23 Gm.  $NH_3$ -nitrogen (=27.93 Gm.  $NH_3$ ) per liter.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Ammonium Citrate with Iron Phosphate**.—see **Iron Phosphate with Ammonium Citrate**

**Ammonium Citrate with Iron Pyrophosphate**.—see **Iron Pyrophosphate with Ammonium Citrate**

**Ammonium Dichromate Merck**.—Highest Purity, cryst. (1)

$(NH_4)_2Cr_2O_7$ .—Orange cryst.—*Sol.* W.—*Uses*: Reag.

**do. Merck**.—Technical (1)

*Uses*: Pyrotechn., electrotechn., glass industry, and manuf. of ink and leather.

**Ammonium Diiodoparaphenolsulphonate**.—see **Soziodole-Ammonium**

**Ammonium Dithiocarbamate Merck** (40)

(Normal Ammonium Dithiocarbamate).—React.-prod. of ammonia &  $CS_2$ — $CH_3N_2S_2$ , or,  $NH_2CS.SHNH_3$ .—Yellow, hygros. prisms.—*Sol.* A.

**Ammonium Dithiocarbonate Merck**.—Reagent.—Solution (2)

$CO(SNH_3)_2$  + aq.—Yellow liq.; amm. odor.; abt. 10–12%  $CO(SNH_3)_2$  + abt. 8%  $NH_4Cl$  + sm. quant.  $NH_4SCN$  &  $(NH_4)HS$ .—*Tests*: (Res.) evap. 10 Ce. & ignite—none wghble.—(*Ammon. Carb.*) 10 Ce. + 3 Ce. solut.  $CaCl_2$ —no ppt., even on heat.—*Uses*: Substit. for  $H_2S$  &  $(NH_4)HS$ .

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Ammonium Embelate Merck**

(800

$\text{NH}_4\text{C}_6\text{H}_5\text{O}_2$ .—Grayish-violet powd.—*Sol.*, dil. A.—*Uses*: Teniafuge.—*Dose*: Children, 3 grains (0.2 Gm.); adults, 6 grains (0.4 Gm.), in syrup or honey, or in wafers, on empty stomach, & followed by castor oil. The treatment is preceded by a milk diet for 3 days.

**Ammonium Ethylsulphate Merck**

(15

(Ammonium Sulphethylate, or Sulphovinate).—*React.*-prod. of barium ethylsulphate & ammonium sulphate.— $\text{NH}_4\text{C}_2\text{H}_5\text{SO}_4$ .—*Colorl.*-cryst.—*Sol.* W.—*Melt.* 99° C.

**Ammonium Ferricyanide Merck**

(25

$(\text{NH}_4)_3\text{Fe}(\text{CN})_6 + 3\text{H}_2\text{O}$ .—Red, shining, monoclinic prisms.—*Sol.* W.

**Ammonium Ferrocyanide Merck**

(8

$(\text{NH}_4)_4\text{Fe}(\text{CN})_6 + 6\text{H}_2\text{O}$ .—Yellow or greenish cryst.; turn blue in air.—*Sol.* W.—*Caut.* Keep dark; stopper tight.

**Ammonium Fluoride Merck.—Highest Purity**

(3

$\text{NH}_4\text{F}$ .—Sm., deliq., colorl., hexag., flat cryst.; str. saline taste.—*Sol.* W.; sl. A.—*Antiper.*; *Alter.*—*Uses*: Hypertroph. of spleen & in goiter.—*Techn.*, anal., & etch. glass.—*Dose* 5–20 m (0.3–1.3 Ce.) of a 0.75% solut.—*Caut.* Keep in gutta-para bottles.

do. Merck.—Free fr. Arsenic.—see Ammonium Bifluoride, free fr. Arsenic

**Ammonium Fluoride Merck.—Reagent**

(6

$\text{NH}_4\text{F}$ .—Wh. cryst.—*Sol.*, eas. W.—*Tests*: (*Res.*) ignite 10 Gm. — none wghble.—(*Cl*) 5 Gm. + 25 Ce.  $\text{H}_2\text{O}$  + few drops  $\text{HNO}_3$  + solut.  $\text{AgNO}_3$  — no turb.—( $\text{H}_2\text{SO}_4$ ;  $\text{H}_2\text{SiF}_6$ ) 5 Gm. + 25 Ce.  $\text{HCl}$  (sp. gr. 1.124) + solut.  $\text{BaCl}_2$ , in platin. dish — no turb.—(*Heavy Metals*) 5 Gm. + 25 Ce.  $\text{H}_2\text{O}$  + few drops  $\text{HCl}$  + 10 Ce. aqu.  $\text{H}_2\text{S}$  — no change; add  $\text{NH}_4\text{OH}$  until alkal., then aqu.  $(\text{NH}_4)\text{HS}$  — at most sl. greenish color, but no ppt.—*Uses*: Analysis of silicates.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Ammonium Fluoride, Acid.—see Ammonium Bifluoride****Ammonium Formate Merck.—Pure**

(5

$\text{NH}_4\text{CHO}_2$ .—Transp., colorl., monoc. cryst.; cool, pung. taste.—*Sol.* W.—*Uses*: Chronic paral., palsy of sensat. or motion; the aqu. solut. is used as an antisept. in inhalations in affect. of the nose, throat, and fauces.—*Dose* 5 grains (0.3 Gm.).

**Ammonium Gallate Merck.—Neutral**

(20

$\text{NH}_4\text{C}_7\text{H}_5\text{O}_6 + \text{H}_2\text{O}$ .—Yellow, cryst. powder.—*Sol.* W.

**Ammonium Glycerinophosphate Merck.—50°C (10**

$(\text{NH}_4)_2\text{PO}_4 \cdot \text{C}_3\text{H}_8(\text{OH})_2 + \text{aq.}$ —Colorl. liq.—Sp. Gr. 1.250 at 15° C.—*Sol.* W.—*Uses*: Deficient nerve

nutrition, neurasthenia, Addison's dis., phosphaturia, convalesce. fr. influenza, &c.—*Dose* 5–10 m (0.3–0.6 Ce.) several t. p. d.

**Ammonium Hippurate Merck**

(35

(Acid Ammonium Hippurate).— $\text{NH}_4\text{H}(\text{C}_9\text{H}_8\text{NO}_3)_2 + \text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.* W., A.

**Ammonium Hydrosulphide.—see Ammonium Sulphydrate****Ammonium Hypophosphite Merck**

(2

$\text{NH}_4\text{PH}_2\text{O}_2$ .—Wh., lamin. cryst.—*Sol.* W.—*Uses*: Phth., all dis. w. loss of nerve power.—*Dose* 10–30 grains (0.6–2 Gm.) 3 t. p. d.

**Ammonium Hyposulphite.—see Ammonium Thiosulphate****Ammonium "Ichthyolsulphonate."—see Ichthyol****Ammonium Iodide Merck**

(6

$\text{NH}_4\text{I}$ .—Wh. to yellowish-wh., hygrosc., cryst. powd.; odorl.; sharp, saline taste; unstable.—*Sol.* 0.6 W., & 9 A. at 25° C.; 0.43 boil. W., & 3.7 boil. A.—*Decomp.* & volat. h. temp. without melt.—*Alter.*; *Resolv.*—*Uses*: *Intern.*, syph., rheumat., scrof., phth., &c.—*Extern.*, lepra, psoria.—*Techn.*, in photography for preparing sensitive collodion (celloidin-collodion).—*Dose* 3–5 grains (0.2–0.3 Gm.) 6 or 8 t. p. d.—*Caut.* Keep tight & fr. light.

**Ammonium Iridibromide.—see Iridium & Ammonium Bromide****Ammonium Lactate Merck**

(5

$\text{NH}_4\text{C}_3\text{H}_5\text{O}_3$ .—Clear, colorl., syrupy, neut. liq.—*Sol.* W., A.—*Caut.* Keep cool. Decomposes when warm.

**Ammonium Mellitate Merck.—Cryst.**

(200

By boil. powd. mellite (honey-stone) in amm. solut. amm. carbonate.— $\text{C}_6(\text{COONH}_4)_6 + 9\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W.

**Ammonium Metavanadate.—see Ammonium Vanadate****Ammonium Molybdate Merck**

(4

$(\text{NH}_4)_6\text{Mo}_7\text{O}_{24} + 4\text{H}_2\text{O}$ .—Greenish-wh. cryst.—*Sol.*, dil. solut. amm. chloride.—*Uses*: Determining phosphoric acid, and as reagent for alkaloids.—*Techn.*, for producing patina on zinc, manuf. a blue dye, &c.

**Ammonium Molybdate Merck.—Reagent**

(5

$(\text{NH}_4)_6\text{Mo}_7\text{O}_{24} + 4\text{H}_2\text{O}$ .—Large, colorless, or sl. greenish cryst.; liberate  $\text{NH}_3$  &  $\text{H}_2\text{O}$  on heat.—*Sol.* W.—*Tests*: ( $\text{H}_3\text{PO}_4$ ) 10 Gm. + 25 Ce.  $\text{H}_2\text{O}$  + 15 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.91) — clear solut.; add 150 Ce.  $\text{HNO}_3$  (sp. gr. 1.20) — no yellow ppt. on stand. 2 hrs. at 40° C.—(*Heavy Metals*) 2 Gm. + 5 Ce.  $\text{H}_2\text{O}$  + 5 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96) + 10 Ce. aqu.  $\text{H}_2\text{S}$  — no green color or ppt.—( $\text{H}_2\text{SO}_4$ ) 1 Gm. + 10 Ce.  $\text{H}_2\text{O}$ , acidul. w.  $\text{HNO}_3$ , & add solut.  $\text{Ba}(\text{NO}_3)_2$  — no turb.—(*Cl*) acidul. 20 Ce. 1:10 aqu. solut. w.  $\text{HNO}_3$ , & add solut.  $\text{AgNO}_3$  — no turb.—*Uses*: Detect.  $\text{H}_3\text{PO}_4$ ; determ. P, Pb,

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Nyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

& Br, reagent for alkali ls,  $\text{H}_2\text{O}_2$ , tannin, free mineral acids, & tartaric acid.

*Note*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Ammonium Mucate Merck** (20)  
(Normal Ammonium Mucate).— $(\text{NH}_4)_2\text{C}_6\text{H}_8\text{O}_6$ .  
—Wh. cryst.—*Sol.* W.

**Ammonium Muriate.**—see **Ammonium Chloride**

**Ammonium Nitrate Merck.**—Highest Purity, cryst. 1

$\text{NH}_4\text{NO}_3$ .—Colorl. cryst., us'y long, thin, rhombic prisms; deliq.; odorl.; sharp, bitter taste.—*Sol.* 0.5 W.; 20 A.—*Melt.* 152° C.—*Uses*: Laughing gas (nitrogen monoxide), freezing-mixtures, & explosives.—*Caution*. Keep well stoppered.

do. Merck.—Pure, fused (1)

do. Merck.—Cryst. or gran. (1)

*Uses*: As of preceding.

**Ammonium Nitrate Merck.**—Reagent (2)

$\text{NH}_4\text{NO}_3$ .—Colorl. cryst.—*Sol.*, eas. W.—*Tests*: Same as for ammonium chloride, but the following in addition: (Cl) 1 Gm. + 10 Cc.  $\text{H}_2\text{O}$  + a few drops  $\text{HNO}_3$  + solut.  $\text{AgNO}_3$ —no turb.—( $\text{HNO}_3$ ) 1 Gm. + 20 Cc.  $\text{H}_2\text{O}$  + 1 Cc. dil.  $\text{H}_2\text{SO}_4$  + 1 Cc. fresh, prep. colorl. solut. (0.5:100) metapheylene-diamine hydrochlor. —no yellow or yellowish-brown color.—*Uses*: Aid to combustion; determ. S in coke & phosphoric acid; freezing mixtures.

*Note*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Ammonium Nitrite** (2)

$\text{NH}_4\text{NO}_2$ .—Clear, yellow liq.; peculiar charact. odor.—*Sol.* W.—Decomp. heat.

**Ammonium Oleate Merck** (3)

(Ammonia Soap).— $\text{NH}_4\text{C}_{18}\text{H}_{33}\text{O}_2$ .—Gelat. mass; liquefies w. heat.—*Sol.* A, E.—*Uses*: Detergent.

**Ammonium Oxalate Merck.**—Highest Purity (1)

(Diammonium, or Normal Ammonium, Oxalate).— $(\text{NH}_4)_2\text{C}_2\text{O}_4 + \text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.* W.—*Uses*: Chem.

do. Merck.—Pure (1)

**Ammonium Oxalate Merck.**—Reagent (2)

$(\text{NH}_4\text{COO})_2 + \text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.* 25 cold W.—*Tests*: (Res.) ignite 3 Gm. — none wghble.—( $\text{H}_2\text{SO}_4$ ) 5 Gm. + 200 Cc.  $\text{H}_2\text{O}$ , heat, add 10 Cc.  $\text{HCl}$  (sp. gr. 1.124) & solut.  $\text{BaCl}_2$ —no ppt. ( $\text{BaSO}_4$ ) within 12 hrs.—(Cl) 1 Gm. + 25 Cc.  $\text{H}_2\text{O}$  + 10 Cc.  $\text{HNO}_3$  (sp. gr. 1.153) + a few drops solut.  $\text{AgNO}_3$ —no turb.—(*Heavy Metals*) 1 Gm. + 25 Cc.  $\text{H}_2\text{O}$  + aqu.  $\text{H}_2\text{S}$ —no react.; add 5 Cc.

$\text{NH}_4\text{OH}$  (sp. gr. 0.96)—no ppt. or green color.—*Uses*: Detect. & determ. Cu & the rarer metals (Ce, Th, Zr, &c.).

*Note*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Ammonium Oxalate, Acid.**—see **Ammonium Binoxalate**

**Ammonium Oxalurate Merck** (75)

(Ammonium Uro-oxalate).—Fr. amm. parabanate, by hot W.— $\text{NH}_4\text{C}_4\text{H}_3\text{N}_2\text{O}_4$ .—Wh. to yellowish cryst.—*Sol.*, hot W.

**Ammonium Oxamate Merck** (30)

Fr. ammonia w. alcoholic solut. ethyl oxalate.— $\text{CONH}_2\text{COONH}_4$ .—Colorl. cryst.—*Sol.* W.

**Ammonium Palmitate Merck** (15)

(Acid Ammonium Palmitate).— $\text{NH}_4\text{C}_{16}\text{H}_{31}\text{O}_2$ .— $\text{C}_{16}\text{H}_{33}\text{O}_2$ .—Hard, wh., soapy mass.—*Sol.*, hot A, E.; insol. cold W. Decomp. by much water.—*Uses*: Techn.

**Ammonium Perchlorate Merck** (30)

$\text{NH}_4\text{ClO}_4$ .—Colorl., transp., rhomboh. cryst.—*Sol.* W.—*Uses*: Explosives.

**Ammonium Persulphate Merck** (2)

$(\text{NH}_4)_2\text{S}_2\text{O}_8$ .—Colorless cryst.—*Sol.* W., with turbid.; aqu. solut. evolves O. on heat.—Disinfect.; Deodor.—*Uses*: Extern., succedaneum for potass. permang. (as in mouth washes).—*Techn.*, preserv. & deodoriz. vietuals, in 0.5–2% solut.; also as reagent for albumin and indican in urine, as reducer and restrainer in photography, oxidizer for copper, etching zinc, and removing pyrogallol stains.

**Ammonium Phenate Merck** (3)

(Ammonium Phenylate; Ammonium Carbolate).— $\text{C}_6\text{H}_5\text{O.NH}_4$ .—Cryst. masses.—*Sol.* W.—Antisep.; Antipyr.—*Dose* 2–6 grains (0.12–0.36 Gm.).

**Ammonium Phenolsulphonate Merck** (2)

(Ammonium Sulphocarbonate, Sulphophenate, or Sulphophenylate).— $\text{C}_6\text{H}_4\text{OHSO}_3\text{NH}_4$ .—Wh., cryst.—*Sol.* W.—Antisep.—*Dose* 1–5 grains (0.06–0.3 Gm.) sev. t. p. d.

**Ammonium Phenylate.**—see **Ammonium Phenate**

**Ammonium Phosphate, Acid.**—see **Ammonium Biphosphate**

**Ammonium Phosphate Merck.**—Dibasic.—Highest Purity, Medicinal (1)

(Hydrogen Diammonium Phosphate; Diammonium Orthophosphate).— $(\text{NH}_4)_2\text{HPO}_4$ .—Colorl., transl., monoel. prisms; odorl.; cooling, saline taste.—*Sol.* 4 W.—*Uses*: Rheum., gout.—*Dose* 5–20 grains (0.3–1.3 Gm.) 3 or 4 t. p. d. in  $\frac{1}{2}$  oz. W.—*Caution*. Keep well stoppered.

do. Merck.—Pure (1)

do. Merck.—Purified, cryst. (1)

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Ammonium Phosphate Merck.—Reagent** (2)

$(\text{NH}_4)_2\text{HPO}_4$ .—Colorl., cryst., or white, cryst. powd.—*Sol.* 4 cold, & 0.5 boil., W.—*Tests:* (*Alkalies*) 2 Gm. + 100 Ce.  $\text{H}_2\text{O}$  + excess solut.  $\text{Pb}(\text{C}_2\text{H}_3\text{O}_2)_2$ ; filter; treat filtrate w.  $\text{H}_2\text{S}$  to remove excess Pb; filter; evap. filtrate to dryness & ignite—no alkal. res. sol. in W.—(*As*) 1 Gm. + 3 Ce. solut.  $\text{SnCl}_2$ ; shake—no darker color within 1 hr.—( $\text{CO}_2$ ;  $\text{H}_2\text{SO}_4$ ) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  +  $\text{HCl}$ —no effervesc.; add solut.  $\text{BaCl}_2$ —no ppt. ( $\text{BaSO}_4$ ) within 12 hrs.—(*Cl*) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 5 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + solut.  $\text{AgNO}_3$ —not more than sl. opalesc.—( $\text{HNO}_3$ ) 2 Gm. + 10 Ce.  $\text{H}_2\text{O}$  + 1 drop 1:1000 solut. indigo + 10 Ce. conc.  $\text{H}_2\text{SO}_4$ —blue color must persist for 1 hr.—(*Heavy Metals*) 2 Gm. + 20 Ce.  $\text{H}_2\text{O}$  +  $\text{HCl}$  (to acidul.) + aqu.  $\text{H}_2\text{S}$ —no change; add  $\text{NH}_4\text{OH}$  until alkal. & a few drops solut.  $(\text{NH}_4)_2\text{HS}$ —no ppt. or green color.—*Uses:* Detect. & determ. Mg, Ni, Zn, & U.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Ammonium Phosphate, Monobasic.—see Ammonium Biphosphate****Ammonium Phosphate Merck.—Tribasic** (4)

$(\text{NH}_4)_3\text{PO}_4 + 3\text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.* W.—*Uses:* In culture media.—*Caut.* Keep well stoppered; changes rap. to hydrogen diamm. phosphate.

**Ammonium Phosphite Merck** (15)

$(\text{NH}_4)_2\text{HPO}_3 + \text{H}_2\text{O}$ .—Colorl., deliq. cryst.—*Sol.* W.—*Uses:* Reducing agent.

**Ammonium Phosphomolybdate Merck** (25)

Fr. amm. molybdate & phosphoric, w. nitric, acid.— $2(\text{NH}_4)_3\text{PO}_4 + 24\text{MoO}_3 + 12\text{H}_2\text{O}$ . (Formula variable).—Yellow, cryst. powd.—*Sol.*, alkalies, aqua regia.—*Uses:* Reagent for alkaloids.

**Ammonium Phosphotungstate Merck** (15)

(Ammonium Phosphowolframate).— $24\text{WO}_3 + 2(\text{NH}_4)_3\text{PO}_4 + x\text{H}_2\text{O}$ .—Composition variable.—Wh. powd.—*Sol.* W.

**Ammonium Phosphowolframate.—see Ammonium Phosphotungstate****Ammonium Phthalate Merck** (12)

$(\text{NH}_4)_2(\text{COO})_2\text{C}_6\text{H}_4$ .—Wh. cryst.—*Sol.* W.

**Ammonium Picramate Merck** (100)

$\text{NH}_4\text{C}_6\text{H}_4\text{N}_3\text{O}_6$ , or,  $\text{NH}_4\text{O} \cdot \text{NH}_2(\text{NO}_2)_2\text{C}_6\text{H}_2$ .—Dark, orange-red, rhombh. cryst.—*Sol.* W.

**Ammonium Picrate** (3)

(Ammonium Piconitrate, or Carbazotate).— $\text{NH}_4\text{C}_6\text{H}_2(\text{NO}_2)_3\text{O}$ .—Bright yellow scales, or prisms.—*Sol.* W.—Antipyr.; Antiper.—*Uses:* Intern., malarial neural., periodic fevers & headache.—*Techn.*, explosives, fireworks.—*Dose*  $1/4$ – $1\frac{1}{2}$  grains (0.015–0.1 Gm.) 3 t. p. d., in pills.

**Ammonium Picrocarminate** (25)

Dark red powd.—*Sol.* W.—*Uses:* Microscopy.

**Ammonium Piconitrate.—see Ammonium Picrate****Ammonium Purpurate, Acid.—see Murexid****Ammonium Pyrophosphate Merck** (8)

$(\text{NH}_4)_4\text{P}_2\text{O}_7$ .—Colorl. cryst.—*Sol.* W.

**Ammonium Rhodanide.—see Ammonium Sulphocyanate****Ammonium Salicylate Merck.—Cryst.** (2)

$\text{NH}_4\text{C}_7\text{H}_5\text{O}_3$ , or,  $\text{C}_6\text{H}_4(\text{OH})\text{COONH}_4$ .—Colorl. cryst.—*Sol.* 0.9 W., & 2.3 A. at  $25^\circ\text{C}$ .; freely in boil. W., & 1 boil. A.—Antirheum.; Antipyr.; Germic.; Expector.—*Uses:* In febrile conditions, bronchitis, artic. rheumat., &c.—*Dose* 2–20 grains (0.12–1.3 Gm.), in wafers.

**do. Merck.—Fr. Oil Wintergreen** (18)

Wh. powd.—*Sol.* W.—*Uses:* As preceding; said to act better.

**Ammonium Selenate Merck** (180)

$\text{NH}_4\text{HSeO}_4$ .—Colorl. cryst.—*Sol.* W.

**Ammonium Selenite Merck** (150)

$(\text{NH}_4)_2\text{SeO}_3$ .—Colorl. cryst.—*Sol.* W.—*Uses:* Test. alkaloids; also in glass industry.—*Caut.* Keep fr. light.

**Ammonium Silicofluoride Merck** (7)

$2\text{NH}_4\text{F} \cdot \text{SiF}_4$ .—Wh., cryst. powd., or cryst.—*Sol.* W.—Antisep.

**Ammonium Sozoiodolate.—see Sozoiodole-Ammonium****Ammonium Stearate Merck** (12)

$\text{NH}_4\text{C}_{18}\text{H}_{35}\text{O}_2$ .—Wh., soapy mass.—*Sol.*, hot A.; insol. cold W. Decomp. by much water.

**Ammonium Succinate Merck.—Pure, cryst.** (18)

$(\text{NH}_4)_2\text{C}_4\text{H}_4\text{O}_4$ .—Transp., colorl. cryst. Lose ammonia on expos.—*Sol.* W.—*Uses:* Intern., (usually as liquor ammonii succinatis) in spasmodic pains, partic. in spastic contractions of osuteri.—*Dose* 2–2  $\frac{1}{2}$  grains (0.12–0.15 Gm.) in aqu. solut. ev. 15 minutes.—*Caut.* Keep well stoppered.

**Ammonium Sulphate Merck.—Highest Purity** (1)

$(\text{NH}_4)_2\text{SO}_4$ .—Colorl., transp. cryst.—*Sol.* W.—*Uses:* Mostly techn., and chiefly in manuf. artif. manure.

**do. Merck.—Pure** (1)**Ammonium Sulphate Merck.—Reagent** (2)

$(\text{NH}_4)_2\text{SO}_4$ .—Colorl. cryst.—*Sol.* 2 cold, 1 boil. W.; insol. A.—*Tests:* (*Res.*) ignite 3 Gm. — none wghble. — (*Cl*) 2 Gm. + 20 Ce.  $\text{H}_2\text{O}$  +  $\text{HNO}_3$  + solut.  $\text{AgNO}_3$ —no turb.—(*Heavy Met.*) 2 Gm. + 20 Ce.  $\text{H}_2\text{O}$  +  $\text{H}_2\text{S}$  (or  $\text{NH}_3$  +  $[\text{NH}_4]\text{HS}$ )—no react. in either case.—( $\text{NH}_4\text{SCN}$ ) 1 Gm. + 10 Ce.  $\text{H}_2\text{O}$  + few drops  $\text{HCl}$  + 1 drop solut.  $\text{FeCl}_3$ —no red color. — ( $\text{H}_3\text{PO}_4$ ;  $\text{H}_3\text{AsO}_4$ ) 5 Gm. + 20 Ce.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



$\text{H}_2\text{O} + 3\text{Ce}$  magnes mixture + 10 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96) — no ppt. within 12 hrs. — ( $\text{HNO}_3$ ) 2 Gm. + 10 Ce.  $\text{H}_2\text{O}$  + 1 drop 1-1000 solut indigo + 10 Ce. conc.  $\text{H}_2\text{SO}_4$  blue color should persist for 1 hr. — *Uses*: Prep. ferrous ammon. sulphate; precip. albuminoids, standardizing soluts.

*Note*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Ammonium Sulphate, Acid.**—see **Ammonium Bisulphate**

**Ammonium Sulphethylate.**—see **Ammonium Ethylsulphate**

**Ammonium Sulphide.**—see **Ammonium Sulphydrate**

**Ammonium Sulphite Merck.**—Pure, cryst. (3  $(\text{NH}_4)_2\text{SO}_3 + \text{H}_2\text{O}$ ).—Colorl., cryst.; acid, sulphur taste; deliq.—*Sol. W.*—Subl. h. temp.—*Antisept.*—*Uses*: Fermentat. dyssep. & skin dis.—*Dose* 5-20 grains (0.3-1.3 Gm.).—*Appl.* 5-10% solut.—*Caut.* Keep well stoppered.

**Ammonium Sulphocarbonate.**—see **Ammonium Phenolsulphonate**

**Ammonium Sulphocarbonate Merck.**—10% Solution (1 (Ammonium Thiocarbonate).—Fr. ammonium carbonate and carbon disulphide.— $(\text{NH}_4)_2\text{CS}_3$ .—*Uses*: In 10% solut. as insecticide on plants.

**Ammonium Sulphocyanate Merck.**—Pure cryst. (1 (Ammonium Sulphocyanide, Thiocyanate, or Rhodanide).—React.-prod. fr. carbon disulph., str. alc. & concentr. ammonia water.— $(\text{NH}_4)_4\text{SCN}$ .—Colorl., deliq. cryst.—*Sol. W.*, A.—*Uses*: Chem.—*Caut.* Keep well stoppered.

**do. Merck.**—Purified (1

**do. Merck.**—Technical (1

*Uses*: In double staining, and in dyeing fabrics.

**Ammonium Sulphocyanate Merck.**—Reagent (4  $(\text{NH}_4)_4\text{SCN}$ .—Colorl. cryst.—*Sol.*, eas. W., & A.—*Tests*: (*Res.*) ignite 2 Gm. — none wghble.—(*Impur. Insol. in Alcoh.*) 1 Gm. + 10 Ce. absol. alcob. — perfectly solub., & clear solut.—( $\text{H}_2\text{SO}_4$ ) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + few drops  $\text{HCl}$  + solut.  $\text{BaCl}_2$  — no turb. within 5 min.—(*Heavy Met.*) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + few drops  $(\text{NH}_4)\text{HS}$  — no ppt., & no brown color.—(*Fe*) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 0.5 Ce.  $\text{HCl}$  (sp. gr. 1.124) — colorl. solut.—*Uses*: Detect. Fe; reagent, partic. in forensic analysis in separation & volumetric determination of small quantities of arsenic, antimony, mercury, silver, copper, halogens, & mustard oil.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Ammonium Sulphocyanide.**—see **Ammonium Sulphocyanate**

**Ammonium "Sulphoichthylate."**—see **Ichthylol**

**Ammonium Sulphophenate.** ) —see **Ammonium Ammonium Sulphophenylate.** ) **Phenolsulphonate**

**Ammonium Sulphoricate Merck** (100

Brown, oint.-like masses, solut. foams.—*Sol. A.*; all prop. W.—*Antisept.*; *Deodor.*—*Uses*: *Extern.*, skin dis., tuberc. or o. ulcerat. muc. memb.—*Appl.* 20% solut.

**Ammonium Sulphovinate.**—see **Ammonium Ethylsulphate**

**Ammonium Sulphydrate Merck** (10

(Ammonium Sulphide; Ammonium Hydrogen Sulphide; Ammonium Hydrosulphide).— $(\text{NH}_4)_2\text{HS}$ .—Colorl., cryst. masses; turn rapidly yellow on expos.; subl. ord. temp.—*Sol. W.*—*Uses*: Group reagent in solut.; also techn., for denitrating nitrocellulose.—*Caut.* Keep well stoppered.

**do. Merck.**—Solution (1

Fr. satur. solut. hydrogen sulphide in 3 pts. amm., by adding 2 pts. amm.—*Uses*: Obsolete remedy for catarrhal and asthmatic affections, diabetes, etc.—*Dose* 5-10 M (0.3-0.6 Ce.).—*Caut.* Keep in sm. amber bottles in a dark place.

**Ammonium Sulphydrate Merck.**—Reagent.—Solution (1

Solut.  $\text{H}_2\text{S}$  in  $\text{NH}_4\text{OH}$ .—Colorl. or sl. yellow liq.; strongly alkal.—*Tests*: (*As*; *Sb*; *Sn*) 50 Ce. +  $\text{HCl}$  to acidity — copious evol.  $\text{H}_2\text{S}$  gas, but no colored ppt.—(*Res.*) evap. 10 Ce. & ignite in pored. dish — none wghble.—(*Ammon. Carbon.*) 10 Ce. + 3 Ce. solut.  $\text{CaCl}_2$  — no ppt. even on heat.—*Uses*: Detect.  $\text{HCN}$  in forensic analysis; group reagent; detect. heavy metals.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Ammonium Sylvinate Merck** (500

$\text{NH}_4\text{C}_{20}\text{H}_{20}\text{O}_2$ .—Yellowish-wh. cryst. powd.—*Sol.*, sl. W. & A.

**Ammonium Tartrate Merck.**—Neutral, cryst. (2  $(\text{NH}_4)_2\text{C}_4\text{H}_4\text{O}_6$ .—Colorl. cryst.—*Sol. W.*—*Expector.*—*Dose* 5-30 grains (0.3-2 Gm.).

**Ammonium Tartrate, Acid.**—see **Ammonium Bitartrate**

**Ammonium Tartrate with Iron & Potassium Tartrate.**—see **Iron & Potassium Tartrate with Ammonium Tartrate**

**Ammonium Tellurate Merck** (1200

$(\text{NH}_4)_2\text{TeO}_4$ .—Wh., amorph. powd.—*Sol.*, dil. acid.—*Uses*: Reagent for various alkaloids & glucosides.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Ammonium Thioacetate Merck.—Reagent. — Solution** (15)

(Schiff's Reagent). —  $\text{CII}_3\text{CO}_2\text{S}(\text{NH})_4 + \text{aq.}$  — Clear, yellowish solut.; faint odor of ammon. sulphhydrate. — Abt. 30%  $\text{CH}_3\text{CO}_2\text{S}(\text{NH})_4$ . — *Tests:* (Res.) evap. 10 Cc. & ignite—none wghble. — (Ammon. Carbon.) 10 Cc. + 3 Cc. solut.  $\text{CaCl}_2$ —no ppt., even on heat. — ( $\text{H}_2\text{SO}_4$ ) 10 Cc. + 10 Cc. dil.  $\text{C}_2\text{H}_4\text{O}_2$  + solut.  $\text{BaCl}$ —no immud. turb. — *Caut.* Reag. soon bec. turb., hence best to prepare solut. fresh. — *Uses:* Instead of  $\text{H}_2\text{S}$  as an absolutely arsenic-free substit. for ammon. sulphide &  $\text{H}_2\text{S}_2$ , especially in organic & forensic analyses, for pptng. metals as sulphides.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Ammonium Thiocarbonate. — see Ammonium Sulphocarbonate****Ammonium Thiocyanate. — see Ammonium Sulphocyanate****Ammonium Thionurate Merck** (45)

React.-prod., by boil. alloxan w. amm. carbonate & sulphite. — ( $\text{NH}_4$ ) $_2$  $\text{C}_4\text{H}_3\text{N}_3\text{SO}_6 + \text{H}_2\text{O}$ . — Wh. cryst. — *Sol.* W.

**Ammonium Thiosulphate Merck.—Pure, cryst.** (3)

(Ammonium Hyposulphite). — ( $\text{NH}_4$ ) $_2$  $\text{S}_2\text{O}_3$ . — Colorl. cryst. — *Sol.* W. — Antisept. — *Dose* 5–30 grains (0.3–2 Gm.) in water. — *Incomp.*, acids.

**Ammonium Triborate Merck** (1)

$\text{NH}_4\text{BO}_2\text{HBO}_2 + 1\frac{1}{2}\text{H}_2\text{O}$ . — Wh. cryst. — *Sol.* W.

**Ammonium Tungstate Merck.—Pure** (8)

(Ammonium Wolframate). — Compos. variabl. — Wh. cryst. — *Sol.* W.

**Ammonium Uranate Merck** (18)

(So-called "Uranium Oxide, Hydrated"; also "Uranium Yellow"). — Sodium Uranate is the true Uranium Yellow. — React.-prod. fr. sodium uranate by ammonium chloride or sulphate. — ( $\text{NH}_4$ ) $\text{UO}_7 + \text{aq.}$  — Reddish-yellow, amorph. powd. — *Sol.*, acids. — *Uses:* Techn., for painting (black) on porcelain.

**Ammonium Urate Merck** (20)

(Acid Ammonium Urate). — ( $\text{NH}_4$ ) $\text{C}_5\text{H}_3\text{N}_4\text{O}_3$ . — Wh., cryst. powd. — *Sol.*, sl. in W. — Antisept. — *Uses:* Chronic eczema & o. dermic affect. — *Appl.* 4% oint.

**Ammonium Urate, Acid. — see Ammonium Urate****Ammonium Uro-oxalate. — see Ammonium Oxalurate****Ammonium Valerate Merck.—White, cryst.** (2)

(Ammonium Valerianate). —  $\text{NH}_4\text{C}_5\text{H}_9\text{O}_2 + 2\text{C}_5\text{H}_{10}\text{O}_2$ . — Colorl., deliq. plates; valerian odor; sharp, sweet taste. — *Sol.* W., A., E. — Nerve

Tonic. — *Uses:* Nerv. headache or insom., hyst. — *Dose* 2–8 grains (0.12–0.5 Gm.), several t. p. d. in pills or solut. — *Caut.* Keep well stoppered.

**Ammonium Vanadate Merck.—Pure** (30)

(Ammonium Metavanadate). —  $\text{NH}_4\text{VO}_3$ . — Wh. powd. — *Sol.*, diffic. in W. — *Uses:* Techn., in printing on woollens, manuf. vanadium black, manuf. "indelible ink," dyeing wood black, and for producing the vanadium luster on pottery.

**Ammonium Wolframate. — see Ammonium Tungstate****Ammonium & Iron Tartrate. — see Iron & Ammonium Tartrate****Ammonium & Osmium Chloride. — see Osmium & Ammonium Chloride****Ammonium & Platinum Salts. — see Platinum & Ammonium Salts****Ammonium & Potassium Bimalate Merck.—Pure** (50)

$\text{NH}_4\text{K}(\text{C}_4\text{H}_5\text{O}_2)_2$ . — Wh., cryst. masses. — *Sol.* W.

**Ammonium & Potassium Chromate Merck** (3)

$\text{NH}_4\text{KCrO}_4 + \text{H}_2\text{O}$ . — Yellow cryst. — *Sol.* W.

**Ammonium & Potassium Citrate Merck** (5)

$\text{NH}_4\text{K}_2\text{C}_6\text{H}_6\text{O}_8$ . — Wh. cryst. — *Sol.* W.

**Ammonium & Potassium Fluoride Merck.—Pure** (3)

$\text{NH}_4\text{F.KF}$ . — Wh., cryst. powd. — *Sol.* W.

**Ammonium & Potassium Salts. — see Potassium & Ammonium Salts****Ammonium & Sodium Arsenate Merck.—Cryst.** (3)

$\text{NH}_4\text{NaHAsO}_4 + \text{aq.}$  — Wh. cryst. — *Sol.* W.

**Amomum Melegueta**

(Grains of Paradise; Guinea Grains; Melegueta Pepper; Paradise Seed). — Seed of *Amomum Melegueta*, Roscoe. Zingiberaceae. — *Habit.*: Ceylon; tropical western coast of Africa. — *Etymol.*: Grk. "a," without, and "momos," fault, i.e., a faultless spice. — *Constit.*: Volat. oil; fixed oil; acrid resin; paradol; tannin. — *Uses*: Spice; also in veterinary practice.

**Ampelopsin (Eclectic)** (30)

Fr. bark & twigs *Ampelopsis quinquefolia*, Mich. (Virginia creeper). — *Sol.* W., A. — Alter. Tonic; Expector. — *Uses*: Colds, syph., dropsy, &c. — *Dose* 2–4 grains (0.12–0.25 Gm.).

**Ampelopsis**

(Virginia Creeper; American Ivy; Woodbine; False Grape). — Bark and twigs of *Ampelopsis quinquefolia*, Mich. (*Vitis hederacea* Ehrh.) Vitaceae. — *Habit.*: U. S. — *Etymol.*: Fr. Grk. "ampelos," grapevine, and "opsis," resembling, referring to its climbing habit. "Quinquefolia," fr. Lat. "quinque," five, and "folium," leaf, i.e., it has five leaflets together. — *Constit.*: Albumin; pyrocatechin; sugar; tartaric acid; calcium and potassium tartrates; glycolic acid; pectin. —

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Trichloride; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

Alternative, Tonic, Dour.—*Uses*. Dropsy, syphilis, broucheitis, etc.—*Dose*. Fld. extr. 5-10 ℥ (0.3-0.6 Gm.) alter.; 10-20 ℥ (0.6-1.3 Gm.) diuretic.

## Amygdalin Merck (30)

Fr. seeds Amygdalaceae, Drupaceae, & Pomaceae, princip. fr. almonds— $C_{20}H_{27}NO_{11} + 3H_2O$ .—Wh. sl'y bitter cryst.—*Sol.* W, sl. in A.—*Melt.* 200° C. w. decompos.—*Expector.*; *Demulc.*—*Max. D.*  $\frac{1}{2}$  grain (0.03 Gm.) single;  $1\frac{1}{2}$  grains (0.1 Gm.) per day.—*Caut.* Keep well stoppered.

## Amygdophenin

(Phenetidin Amygdalate).— $C_6H_5OC_2H_5.NH.COCH_3$  oil  $C_6H_5$ .—Wh. leaflets.—*Sol.*, eas. A.; diffie. W.—*Melt.* 140.5° C. Antineuralgic.—*Uses*: Artic. rheumat.—*Dose* 15 grains (1 Gm.) sev. t. p. d.

## Amyl Acetate Merck.—Pure (1)

(Amylacetate Ester; Isoamyl Acetate).—React.-prod., amyl alc. w. sulphuric & acetic acids.— $C_7H_{14}O_2$ , or,  $C_5H_{11}.C_2H_5O_2$ .—Colorl., transp. liq.; arom., ether. odor.—*Sp. Gr.* 0.876 at 15° C.—*Sol.*, all prop., A, E.—*Boil.*, abt. 140° C.—*Uses*: Perfumery, manuf. mineral waters and syrups, as burning fluid in Biefner lamp as a standard light unit.

## do. Merck.—Technical (1)

(Pear Oil).—*Uses*: As solvent, etc.

## Amyl Alcohol, Tertiary.—see Amylene Hydrate

## Amyl Amidoformate.—see Amyl Carbamate

## Amyl Benzoate Merck (6)

(Isoamylbenzoate Ester).—React.-prod., ethyl benzoate & isoamyl alc.— $C_{15}H_{22}O_2$ , or,  $C_7H_{15}.C_7H_5O_2$ .—Transp. liq.—*Sp. Gr.* 1.004 at 0° C.—*Sol.* A.—*Boil.* 260° C.

## Amyl Bromide Merck (8)

(Isoamyl Bromide).—Fr. isoamyl alc., by bromine, w. phosphorus.— $C_5H_{11}Br$ .—Clear, colorl. liq.—*Sp. Gr.* 1.219 at 15° C.—*Sol.* A.—*Boil.* 120° C.—*Germic.*; Antisep.

## Amyl Butyrate Merck (4)

(Isoamylbutyrate Ester).—React.-prod. of amyl alcohol, butyric & sulphuric acids.— $C_9H_{18}O_2$ , or,  $C_4H_9.C_5H_{11}O_2$ .—Colorl. liq.—*Sp. Gr.* 0.882 at 0° C.—*Sol.* A.—*Boil.* 178° C.—*Uses*: Flavoring for liqueurs & bonbons.

## do. Merck.—Highest Purity (30)

## Amyl Carbamate Merck (40)

(Amyl Amidoformate; Amyl Urethane; Isoamylcarbamate Ester).—React.-prod. of cyanic acid & amyl alc.— $C_6H_{13}NO_2$ , or,  $C_5H_{11}.NH_2CO_2$ .—Wh. cryst.—*Sol.* A, E.—*Melt.* 60° C.—*Boil.* 220° C.

## Amyl Carbolate.—see Amyl Phenate

## Amyl Chloride Merck (10)

(Isoamyl Chloride).—Fr. isoamyl & hydrochl. acid.— $C_5H_{11}Cl$ .—Colorl. liq.—*Sp. Gr.* 0.880 at 15° C.—*Sol.* A.—*Boil.* 100° C.

## Amyl Cyanide Merck (100)

(Isoamyl Cyanide; Hexoic-acid Nitrile; Capronitrile).—Fr. heptioic acid amide & bromine in NaOH solut.— $C_6H_{11}N$ , or,  $(CH_3)_2CH(CH_2)_3CN$ .—Colorl. liq.—*Sol.* A.—*Boil.* 150-155° C.

## Amyl (or Amylic) Ether or Ester.—see Amyl Oxide

## Amyl Formate Merck (4)

(Isoamyl Formate).—React.-prod., glyce, oxal. acid, & fusel oil.— $C_6H_{12}O_2$ , or,  $C_5H_{11}.CHO_2$ .—Colorl. liq.—*Sp. Gr.* 0.868 at 15° C.—*Sol.* A.—*Boil.* 123° C.—*Uses*: Artif. fruit syrups.

## Amyl Hydrate.—see Alcohol Amylic

## Amyl Hydride.—see Pentane

## Amyl Iodide Merck (20)

(Isoamyl Iodide; Iodamyl).—React.-prod., isoamyl alc., iodine, & phosphorus.— $C_5H_{11}I$ .—Yellowish liq.—*Sp. Gr.* 1.48-1.50 at 15° C.—*Sol.* A.—*Boil.* 110-148° C.—*Sed.*; Antisep.—*Uses*: Inhal. dyspnea & heart affect.

## Amyl Nitrate Merck (6)

(Isoamyl Nitrate).—React.-prod., isoamyl alc., urea nitrate & nitric acid.— $C_5H_{11}NO_3$ .—Colorl. liq.—*Sp. Gr.* 0.999 at 20° C.—*Sol.* A.—*Boil.* 148° C.—*Uses*: Formerly in neuralgia of trigeminal nerve; also in malaria.

(N. B.—Often ordered or written by mistake, when Amyl Nitrite is intended. Therefore, be careful when intending the Nitrate to state that the Nitrite is not meant.)

## Amyl Nitrite Merck (3)

(Isoamyl Nitrite).—Fr. isoamyl alcohol, by nitrous acid.— $C_5H_{11}NO_2$ .—Yellowish, transp., v. diffusive, unstable liq.; penetr. odor, orange vapor.—*Sp. Gr.* 0.870-0.880 at 15° C.; or, 0.865-0.875 at 25° C. (U. S. P.).—*Sol.* C.; all prop. A, E.; insol. W.—*Boil.*, abt. 97-99° C.—Antispasmodic; Depressomotor; Vasodilat.—*Uses*: Angina pectoris, asthma, tetanus, epilepsy, syncope, dyspnea of Bright's dis., convuls., chloroform asphyxia. Antid. to cocaine.—*Dose* 2-4 drops in brandy, or 1-3 drops by inhal. fr. hdkf. in biliary colic 4-8 ℥ (0.25-0.5 Gm.) in capsules, ev. 30 min.—*Incomp.*, alcohol, antipyrine, potassa.—*Antid.*, atropine, ergotin, or strychnine, hypoderm.—*Caut.* Must be used w. caution, as it causes violent congestions and heart-beating; keep in dark amber bot.; keep fr. fire & light!—Often mis-called "Amyl Nitrate."

N. B.—Amyl Nitrite is so very volatile that it is practically impossible to so stopper bottles that they will carry it without loss, especially in warm weather. Ordered in cool weather and kept in a cool place, the loss is not material, but if kept in a warm place, or if agitated much so as to keep up any pressure of the vapor within the bottle, the loss will be considerable.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Amyl Oxide Merck** (30)

(Amyl, Amylic, or Diamyl, Ether).—Fr. amylale. & iodide w. heat.— $C_{10}H_{22}O$ , or,  $C_5H_{11}.O.C_5H_{11}$ .—Colorl. liq.; unpleas. odor.—Sp. Gr. 0.799 at  $0^\circ$  C.—Boil.  $170$ – $175^\circ$  C.—Uses: Solvent in chem. and techn. processes.

**Amyl Phenate Merck** (40)

(Amyl Carbolate; Phenylamyl Ester).— $C_{11}H_{16}O$ , or,  $C_5H_{11}.OC_6H_5$ .—Colorl. cryst.—Sol. A.—Melt.  $90$ – $95^\circ$  C.—Boil.  $220^\circ$  C.

**Amyl Propionate Merck** (10)

(Isoamyl Propionate).— $C_8H_{16}O_2$ , or,  $C_5H_{11}.C_3H_7O_2$ .—Colorl. liq.—Sp. Gr. 0.887 at  $0^\circ$  C.—Sol. A.—Boil.  $160^\circ$  C.

*Amyl Rhodanide.*—see **Amyl Sulphocyanate**

**Amyl Salicylate Merck** (7)

$C_6H_4.OH.CO_2C_5H_{11}$ .—Colorl. to yellowish liq.—Sp. Gr. 1.055–1.065 at  $15^\circ$  C.—Boil.  $250^\circ$  C.—Sol. A., E., C.; insol. W.—Antirheum.—Appl., painted on affected parts, which are to be then covered to prevent too rapid evaporation.—Dose 10 caps., each containing 3 m (0.2 Cc.), per day.

**Amyl Sulphide Merck** (120)

(Isoamyl Sulphide).—React.-prod., amyl chloride & alcoh. potass. sulphide.— $(C_5H_{11})_2S$ .—Clear liq.; onion-like odor.—Sp. Gr. 0.843 at  $20^\circ$  C.—Boil.  $213$ – $216^\circ$  C.

**Amyl Sulphocyanate Merck** (200)

(Amyl Rhodanide).—React.-prod., potass. amylsulphate & potass. sulphocyanate.— $C_5H_{11}CNS$ .—Clear liq.—Sp. Gr. 0.905 at  $20^\circ$  C.—Boil.  $197^\circ$  C.

**Amyl Sulphydrate Merck** (150)

(Isoamyl Mercaptan).— $C_5H_{12}S$ , or,  $C_5H_{11}SH$ .—Clear liq.; repulsive odor.—Sp. Gr. 0.835 at  $21^\circ$  C.—Boil., abt.  $120^\circ$  C.

*Amyl Urethane.*—see **Amyl Carbamate**

**Amyl Valerate Merck.—Pure** (6)

(Isoamyl Ester of Isovaleric Acid; Amyl Valerianate).—React.-prod. of amyl alc. w. sulphuric & valeric acids.— $C_{10}H_{20}O_2$ , or,  $C_5H_{11}.C_5H_9O_2$ .—Clear liq.—Sp. Gr. 0.858 at  $15^\circ$  C.—Sol. A., E.—Boil.  $188$ – $190^\circ$  C.—Sedat.—Uses: Intern., biliary colic.—Techn., flavor: "Apple Essence."—Dose 3–6 m (0.2–0.36 Cc.) ev. half hr. in caps.

**do. Merck.—Technical** (3)

(Apple Oil).—Uses: Techn., for flavoring liquors and candy.

*Amylaetic Ether.*—see **Amyl Acetate**

**Amylamine Merck** (170)

(Isoamylamine).—By distil. amylamine hydrochlor. w. lime.— $C_5H_{13}N$ , or,  $(CH_3)_2CH(CH_2)_2NH_2$ .—Colorl. liq.—Sp. Gr. 0.750 at  $18^\circ$  C.—Sol. A.; all prop., W.—Boil.  $95^\circ$  C.

**Amylamine Hydrochloride Merck** (140)

React.-prod., amyl cyanate, potass. hydroxide & hydrochl. acid.— $C_5H_{14}NCl$ , or,  $C_5H_{11}.NH_2HCl$ .—Wh. cryst.—Sol. W.—Antipyr.—Uses: Fever; lowers force & frequency of pulse.—Dose 7–15 grains (0.4–1 Gm.).

**Amylcarbamide, Tertiary**

(Tertiary Amylurea; Isoamylurea).—React.-prod., amylcarbimide & amm.— $C_6H_{14}N_2O$ , or,  $C_5H_{11}.CO(NH_2)NH$ .—Need.—Sol., sl. W.—Melt., abt.  $151^\circ$  C.

**Amylene Merck** (18)

(Betaisoamylene; Trimethylethylene).—React.-prod. of amylic alcohol & conc. solut. of zinc chloride.— $C_5H_{10}$ , or,  $(CH_3)_2C:CH(CH_3)$ .—Colorl., v. mobile liq.; disagr. odor.—Sp. Gr. 0.666 at  $15^\circ$  C.—Sol., all prop., A., E.—Boil.  $35$ – $38^\circ$  C.—Uses: As dental anesth. in quantities of  $2\frac{1}{2}$ –3 fl. dr. (10–12 Cc.), cautiously employed. See also "Pental."—Caut. Highly inflammable!

*Amylene Bromide.*—see **Bromamylene**

**Amylene Hydrate Merck.—Pure.—Ph. G. iv** (9)

(Tertiary Amyl Alcohol; Dimethylethylearbinol).—React.-prod. ice-cold amylene, water & sulphuric acid.— $C_5H_{12}O$ , or,  $(CH_3)_2C(C_2H_5)OH$ .—Colorl., oily liq.; ether., camphor. odor and taste.—Sp. Gr. 0.815–0.820 at  $15^\circ$  C.—Sol. W., A., E., C., B., G.—Boil.  $99$ – $103^\circ$  C.—Hypn.; Sed.; without effect on heart.—Uses: Insomnia, alcoh. excitement, epil., whoop-cough, diabet. insip., &c.—Dose: Hypn., 45–90 m (3–6 Cc.); sed., 15–30 m (1–2 Cc.); in beer, wine, brandy, syrup, &c., or in capsules.—Caut. Keep in well-stoppered, amber bot.

*Amylene Iodide.*—see **Iodamylene**

*Amylenechloral.*—see **Dormiol**

*Amylodextrin.*—see **Starch, Soluble**

**Amyloform** (10)

Condensation prod. of formaldehyde & starch.—Wh., odorl. powd.—Insol. in ordinary solvents.—Antiseptic.—Uses: As of iodoform.

*Amylurea.*—see **Amylcarbamide**

**Anacahuite**

Wood of Cordia Boissieri, D. C. Boraginaceæ (Cordiaceæ).—Habit. Mexico.—Etymol.: "Anacahuite" is the Central-American name of the drug.—Constit.: Tannin.—Uses: Phthisis.—Dose: Decoct. of 60–150 grains (4–10 Gm.) in  $3\frac{1}{4}$  fl. oz. (abt. 100 Cc.) water.

**Anacardium**

(Cashew Nut; West Indian Cashew).—Fruit of Anacardium occidentale, L. Anacardiaceæ. See also "Semeecarpus."—Habit.: West Indies, and tropical America; cultivated in Africa and India.—Etymol.: Grk. "ana," like or up, and "kardia," the heart, i.e., the fruit resembles a dried heart.—Kidney-shaped nut inclosing a

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



large kernel of mild, pleasant, oily taste while fresh.—*Constit.*: Cardol; anacardic acid; tannin; resin; gum. Seed contains fixed oil.—*Pericarp* is rubefac., epispas., and caust. (fr. presence of cardol).—*Uses*: Formerly used in toothache by susp. nut from neck by cord.—*Techn.*, dyeing.

*Anacardium Orientale.*—see **Semecarpus**

**Anacyclus Officinarius**

(German Pellitory).—Root of *Anacyclus officinarum*, Hayne. Compositae.—*Habit.*: Germany.—*Etymol.*: Fr. "ananthocyclus," old generic name fr. Grk. "a," not, "anthos," flower, and "kyklos," a circle, i.e., the outer circle of ovaries is without flowers. "Officinarius" fr. Lat. "officina," shop, i.e., of or pertaining to the shop or store.—*Constit.*: Volat. oil; pyrethrin.—*Uses*: Mastictory; also in toothache.

*Anacyclus Pyrethrum.*—see **Pyrethrum**

**Anaesthesin** (20)

(Paramidobenzoic-acid Ethylester).— $C_9H_{11}O_2N$ , or,  $COOC_2H_5[1].C_6H_4.NH_2[4]$ .—Fr. paranitrobenzoic-acid ethylester by reduct. w. tin & HCl.—Wh., odorl., tastel. powd.—*Sol.*, eas. A., B., C., E., 2-3 olive oil; alm. insol. cold W.; diffic. sol. in hot W.—*Melt.* 90-91° C.—*Loc.* Anesthetic.—*Uses*: *Intern.*, gastric ulcer, nervous dyspepsia, vomiting in pregnancy, gastric hyperesthesia.—*Extern.*, in nose & throat catarrh, whoop.-cough, tuberc. & syphil. laryngeal ulcers, urethritis, hemorrhoids, burnus, intertrigo, pruritus, eczema, etc.—*Dose* 5-8 grains (0.3-0.5 Gm.) 2 or 3 t. p. d.—*Appl.*, in rhinolaryngol., in 3% spray, and paint (1:2 susp. in mucil. acacia); in supposit. ea. cont. 3 grains (0.2 Gm.); in vaginal supposit. ea. cont. 5 grains (0.3 Gm.); 4-10% oint.; & in 10% dust. powd.

**Anagallis**

(Red Pimpernel; Red Chickweed; Scarlet Pimpernel).—Whole herb of *Anagallis arvensis*, L. Primulaceae.—*Habit.*: Europe; naturalized in U. S. and elsewhere.—*Etymol.*: Fr. Grk. "anagelaia," to laugh, i.e., remedy for inducing hilarity.—*Constit.*: Saponin (cyclamin); bitter principle; tannin; volat. oil.—*Uses*: Domestic remedy in rabies; also in mania, epilepsy, and dropsy; also as poultice for ulcers.—*Dose* 2-10 grains (0.12-0.6 Gm.) in powd. or tinct.

**Anagryne Hydrobromide Merck** (2000)

Salt of alkaloid fr. *Anagryis foetida*, L.— $C_{14}H_{18}N_2O_2.HBr$ .—Colorl. or faintly-yellow cryst.—*Sol.* W., A.—*Melt.* 265-266° C.—Heart poison.—*Uses*: Cardiac tonic.—*Caut.* Keep in the dark.

**Anagryne Hydrochloride**

Salt of alkaloid fr. *Anagryis foetida*, L.— $C_{14}H_{18}N_2O_2.HCl$ .—*Sol.* W.

**Anagryis**

(Bois Puant).—Seeds of *Anagryis foetida*, L. Papilionaceae.—*Habit.*: Mediterranean region.—

*Etymol.*: Grk. "ana," backwards, and "gyros," ring, referring to the form of the capsule.—*Constit.*: Angryrine and cytisine (alkaloids); resin; acrid oil.—*Uses*: Emet.; Purg.

**Analgen** (26)

(Quinalgen; Chinalgen; Labordin; Orthoethoxy-anamonobenzoylamidoquinoline; Benzanalgen).—*Deriv.* of ortho-oxy quinoline.— $C_{18}H_{16}N_2O_2$ , or,  $C_6H_5.(OC_2H_5).NH(CO.C_6H_5.N)$ .—Colorl., tastel. cryst.—*Sol.*, hot A., dil. mineral acids; insol. W.—*Melt.* 208° C.—*Antipyr.*: Analg.: Antirheum.—*Uses*: Neural., rheum., febrile dis.—*Dose* 8-15 grains (0.5-1 Gm.) several t. p. d.—*Max. D.* 15 grains (1 Gm.) single; 45 grains (3 Gm.) daily.

*Analgesine.*—see **Antipyrine**

*Anamirta Cocculus.*—see **Cocculus Indicus**

**Ananin**

Bark of an undetermined plant.—*Habit.*: Brazil.—*Uses*: Purg.—*Extern.*, as Escharotic.

*Anarcotinc.*—see **Narcotine**

**Anchieta**

(Anchietea; Cipo (or Sipo) Suma; Cipo Carneiro; Pirageia; Vegetable Mercury).—Bark of the root of *Anchietea salutaris*, St. Hil. Violaceae.—*Habit.*: Brazil.—*Etymol.*: Named for the Portuguese Jesuit José de Anchieta (1533-1597).—*Constit.*: Root contains Anchietine (0.4%); tannin; resin; gum; starch; sugar (according to Peckoldt).—*Uses*: In scrofula, erysipelas, diseases of larynx and throat, eczema, herpes, whooping-cough, and as vulnerary; root is also emetic and cathartic, and causes salivation.—*Dose*, small gobletful of decoct. (30:500) morning and evening. 2 drams of powd. drug are aperient; 3 drams are emetic.

*Anchusa.*—see **Alkanna**

**Anchusa Officinalis**

(Ox-tongue; Garden Alkanet; Bugloss).—Lvs. and tops of *Anchusa officinalis*, L. Boraginaceae.—*Habit.*: Europe.—*Etymol.*: "Anchousa" is the Grk. name for alkanet. *Officinalis* fr. Lat. "officina," a shop. Grk. "bous," ox, and "glossa," tongue, because of the roughness of the leaves.—*Constit.*: Pectin; cynoglossine.—*Emoll.*: Expectoctor.; Aperient; Diuret.; Diaphor.

*Anchusin.*—see **Extract Alkanet**

*Anda Assu.*—see **Joannesia**

**Andira**

(Worm Bark; Jamaica Cabbage Tree; Cabbage Tree).—Bark of *Andira inermis*, H. B. K. (Geoffroya inermis, Swartz; G. jamaicensis, Wright). Papilionaceae (Leguminosae).—*Habit.*: West Indies (especially Jamaica); Mexico.—*Etymol.*: "Andira" is the West-Indian name of the drug.—Bark in pieces of various sizes, thick, whitish or grayish-brown extern., yellowish-brown intern.; resinous fract.; nauseous

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



odor; mucilaginous and sweetish taste; powder resembles jalap powder.—*Constit.*: Surinamine; berberine.—*Emetic*; *Purgative*; *Anthelmintic*.—*Dose* 10–30 grains (0.6–2 Gm.) of the powd., or in form of decoct., syr., or extr.

*Andropogon Ivarancusa*.—see *Ivarancusa*

*Anemone*.—see *Pulsatilla*

*Anemone Camphor*.—see *Anemonin*

### Anemonin Merck (2280)

(Anemone, or Pulsatilla, Camphor).—Fr. Anemone Pulsatilla, L., & o. Ranunculaceae.— $C_{10}H_8O_4$  (Beckurts).—Yellowish-wh. cryst.—*Sol.*, hot A., C.; insol. W.—*Melt.* 152° C.—*Antispasm.*; *Sed.*; *Anod.*—*Uses*: Asthma, bronch., whoop-cough, dysmenor., orchitis, oöphor. & o. painful affect. of female pelvis.—*Dose*  $\frac{1}{4}$ – $\frac{3}{4}$  grain (0.015–0.05 Gm.) 2 t. p. d.—*Max. D.*  $1\frac{1}{2}$  grains (0.1 Gm.) single, 3 grains (0.2 Gm.) daily.

*Anesin*, or *Aneson*.—see *Chloretone*

### Anethol Merck (15)

(Anise Camphor; Paramethoxypropenylbenzene; Parallylphenylmethylic Ester).—Crystallizable const. of anise and fennel oils.— $C_{10}H_{12}O$ , or  $C_9H_9.C_6H_4(OCH_3)$ .—Colorl., cryst. mass; liq. at ord. temp.—*Sol.* A., E., sl. in W.—*Melt.* 21–22° C.—*Boil.* 232–234° C.—*Uses*: Inst. oil anise, especially in southern climates; also for manuf. of anisaldehyde, as imbedding material in microscopy, and for perfuming soap.

*Anetholquinine*.—see *Quinine Anisate*

### Anethum

(Garden Dill; Dill Seed).—Fruit of *Anethum graveolens*, L. Umbelliferae.—*Habit.*: Asia Minor; cult. in Europe.—*Etymol.*: Fr. Grk. “ana,” above, through, and “aithem,” to burn, referring to the pungent taste of the fruit.—Seeds oval or ovoid, seldom longer than  $\frac{1}{3}$  in.; convex or flattish on one side, convex on dorsum; arom. odor and taste.—*Constit.*: Volat. and fixed oils.—*Carmin.*; *Galaetagogue*; *Stim.*; *Stomachic*; used also as spice.—*Dose* 10–30 grains (0.6–2 Gm.).

### Angelica

(Garden Angelica).—Herb, root, and seed of *Archangelica officinalis*, Hoffm. Umbelliferae.—*Habit.*: Europe; Asia.—*Etymol.*: Fr. Grk. “angelos,” angel, because of its supposed magical curative properties.—Root is 2–4 in. long, abt. 1–2 in. thick; annulate, fusiform, & juicy; arom. odor; sweetish, pungent, bitter taste; pale brownish-gray extern.; internally nearly white.—*Constit.*: *Root*: Volat. oil; angelic acid; resin; valeric acid; hydrocarotin (angelicin); acetic acid; starch.—*Seed*: Volat. oil; bitter substance; resin.—*Herb*: Tonic; Stomachic.—*Root*: Nervine; Aromat.; Stim.; Carmin.; Diaphor.; Expector.; Diuret.; Emmen.—*Seeds*: Tonic; Stomachic.; Diuret.; Diaphor.—*Uses*: Dyspep., bronchitis, and flatulence.—*Doses*: *Root*, 30–60 grains (2–4

Gm.); *Alcoh. extr.*, 5–15 grains (0.3–1 Gm.); *Aqu. extr.*, 5–15 grains (0.3–1 Gm.); *Fld. extr.*, 30–60 m (2–4 Cc.).—*Seed*, fld. extr. 30–60 m (2–4 Cc.).

### Angostura

(Cusparia; Carony Bark).—Bark of *Cusparia trifoliata* (C. febrifuga, Humb.; Galipea Cusparia, St. Hil; C. officinalis, Hancock). Rutaceae (Cuspariaceae).—*Habit.*: Northern South America and West Indies.—*Etymol.*: “Angostura” is the name of the town in Venezuela where the drug is obtained.—Flat, curved, or quilled pieces, 2–8 in. long, 1–2 in. wide, and  $\frac{1}{12}$ – $\frac{1}{6}$  in. thick; outer surface grayish-yellow; inner surface dull brown; intern., reddish-brown; smooth, resinous fract.; unpleas. odor and intensely bitter, arom. acrid taste.—*Constit.*: Angosturin ( $C_9H_{12}O_5$ )<sub>x</sub>; cusparine,  $C_{27}H_{19}NO_3$ ; cusparidine,  $C_{19}H_{17}NO_3$ ; galipeine,  $C_{27}H_{19}NO_3$ ; galipidine,  $C_{19}H_{19}NO_3$ ; ethereal oil (0.5–1.5%); resin; a glucoside.—Bitter Tonic and Febrifuge; large doses Emetic and Cathartic.—*Uses*: Diarrhea, dysentery, dyspepsia, etc.; used also as bitters.—*Doses*: 10–30 grains (0.6–2 Gm.) as non-astring. tonic; 20–60 grains (1.3–4 Gm.) emet. and cath.—*Fld. extr.*, 10–30 m (0.6–2 Cc.).

### Anhalonidine Hydrochloride Merck (20000)

$C_{12}H_{15}NO_3.HCl$ .—Salt of alkaloid fr. mescal buttons & isomeric w. anhalonine.—Colorl. cryst.—*Sol.*, eas. hot W.; diff. in cold W.

### Anhalonine Hydrochloride Merck.—Cryst. (5000)

Salt of alkaloid fr. Anhalonium Lewinii, Henning (Mescal Buttons), a Mex. cactus.— $C_{12}H_{15}NO_3.HCl$ .—Wh., cryst. powd.—*Sol.* W.; diff. in A., E., C.—*Melt.*, above 250° C. w. decomp.; (alkaloid melts at 85° C.).—*Cardiac* & *Respirat.* Stim.—*Uses*: Angina pect., asthma, dyspnea. Like strychnine, 3 grains (0.2 Gm.) per 35 oz. (kilo) of body weight constitutes the lethal dose for rabbits.

### Anhalonium

(Mescal Buttons; Pellote).—Seed of *Anhalonium Lewinii*, Henning. (Lophophora Lewinii.) Cactaceae.—*Habit.*: Mexico, and Southern U. S.—*Etymol.*: Grk. “laphos,” a crest or tuft, and “pherein,” to bear, i.e., tufted or crested. “Mescal” is the Mexican name for the plant.—The mescal button is top-shaped, and bears a ring of lvs. bent around a tuft of short yellowish-white filaments or hairs  $\frac{1}{2}$ –1 in. in diam. The “button” is 1–1 $\frac{1}{2}$  in. in diam.,  $\frac{1}{4}$  in. thick, with convex under-surface, brittle and hard when dry, but soft when moist; very bitter, disagr. taste and peculi. disagr. odor.—*Constit.*: Anhalonine,  $C_{12}H_{15}NO_3$ ; mescaline,  $C_{11}H_{17}NO_3$ ; anhalonidine,  $C_{12}H_{15}NO_3$ ; and lophophorine,  $C_{13}H_{17}NO_3$ .—*Card.* and *Respir.* Stim.—*Uses*: Neurasth., hyster., insomn., angina pect., and asthmatic dyspnea.—On being chewed, the “buttons” cause a form of intoxication accompanied by most wonderful visions, remarkably beautiful and varied

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

kaleidoscopic changes, and a sensation of increased physical ability, the physical and psychical functions, however, remaining unimpaired. *Doses* 10-15 grains (0.6-1 Gm.) of subste.; 10-15  $\text{m}$  (0.6-1 Cc.) of fld. extr., and 60-120  $\text{m}$  (4-8 Cc.) of 1-10 tinct.

## Anhydroecgonine Hydrochloride Merck (400)

Derivative of ecgonine.  $\text{C}_{10}\text{H}_{15}\text{NO}_2\text{HCl}$ —Wh. cryst.—*Sol.* A.—*Melt.* 241° C.

## Anhydroglucocholoral.—see Chloralose

## Anilidophenylsafranine Hydrochloride.—see Fast Blue B, Alcohol-soluble

## Aniline Merck.—Pure (1)

(Aniline Oil, Phenylamine; Amidobenzene [or, -ol]).—Org. base fr. nitrobenzene by reduct.  $\text{C}_6\text{H}_5\text{N}$ , or,  $\text{C}_6\text{H}_5\text{NH}_2$ .—Thin, colorl. liq. which soon darkens, somet. to reddish-brown; arom. odor.—*Sol.*, all prop., A., E., methyl A., acetone, carbon disulph., oils.—*Melt.*, minus 8° C.—*Boil.* abt. 180° C.—*Antisept.*—*Uses*: Microscopy, but chiefly in manuf. dyes.—*Antid.*, stomach siphon, cold affusion, ammonia, stim., fresh air, alkal. sod.-chloride transfusions, venesection, sodium sulphate, mucilaginous liquids.—*Incomp.*, oxidizers, albumen, solut. of iron, zinc, aluminum, acids, & alkali.—*Max. D.* 3  $\text{m}$  (0.2 Cc.) single; 6  $\text{m}$  (0.4 Cc.) daily.—*Caut.* Keep dark, in well-stoppered bots.

## Aniline Merck.—Reagent (2)

$\text{C}_6\text{H}_5\text{NH}_2$ .—Colorl., oily, strongly refract. liq.; bec. rapidly brown on expos. to light & air.—*Sol.*, abt. 35 W.—*Solidif.* in freez. mixt., then melts at -8° C.—*Sp. Gr.* 1.027.—*Boil.* 183° C.—*Tests*: (Hydrocarbons; Nitrobenzene) 5 Cc. + 10 Cc.  $\text{HCl}$  (sp. gr. 1.124) — clear liq.; dil. w. 15 Cc.  $\text{H}_2\text{O}$  — no cloudiness on cooling.—*Uses*: Various analyt. operations; in microscopy; detect. woody fiber, nitrates, chlorates, aldehydes, chloral, chloroform, & furfural.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## Aniline Acetate Merck (4)

$\text{C}_6\text{H}_5\text{NH}_2\text{O}_2$ , or,  $\text{C}_6\text{H}_5\text{NH}_2\text{C}_2\text{H}_3\text{O}_2$ .—Oily liquid; solidif. in cold.—*Sol.* W., A.

## Aniline Blue.—see Pure Blue

## Aniline Blue, Alcohol-Soluble.—see Fast Blue B, Alcohol-soluble

## Aniline Bromide.—see Aniline Hydrobromide

## Aniline Brown.—see Bismarck Brown

## Aniline Camphorate Merck (15)

$(\text{C}_6\text{H}_5\text{NH}_2)_2\text{C}_{10}\text{H}_{16}\text{O}_4$ .—Yellow cryst. — *Sol.*, eas. A., E.; dil. A.; diffc. W. and G.; decomp. in C.,  $\text{CS}_2$ , fatty oils.—Antispasmodic.—Clinical data lacking.

## Aniline Chloride.—see Aniline Hydrochloride

## Aniline Dyes.—see under proper names, as below:

*Black*.—see Brilliant Black B, Induline, Nigrosine, & Palatin Black

*Blue*.—see Alkali Blue, Aniline Blue, Cyanine, Fast Blue, Gentian Blue, Marine Blue, Methyl Blue, Methylene Blue, Pure Blue, Reddish Blue, Toluidine Blue, Victoria Blue, & Water Blue; also Induline Blue, fat dye

*Brown*.—see Bismarck Brown & Vesuvine

*Green*.—see Acid Green, Brilliant Green, Coeruleine, Iodine Green, Malachite Green, Methyl Green, Methylene Green, & Naphthol Green; also Aniline Green, fat dye

*Orange*.—see Chrysoidine, Diphenylamine Orange, Methyl Orange, Orange G, Orange T, Tropæoline (00, 000, etc.), & Victoria Orange

*Red*.—see Alizarin Red, Aurin, Benzopurpurine, Biebrich Scarlet, Bordeaux Red, Brilliant Crocein, Cerise, Congo Red, Corallin, Eosine Bluish, Eosine Yellowish, Erythrosine, Fuchsin, Iodeosine, Magdala Red, Methyleosine, Neutral Red, Phloxin, Ponceau, Purpurine (Dry & Paste), Rose Bengal, Ruby S, Safranine, & Scarlet Red; also Sudan III, fat dye

*Violet*.—see Gentian Violet, Hofmann's Violet, Methyl Violet, Methylene Violet, & Parme Violet; also Galloeyanine, fat dye

*Yellow*.—see Amidoazobenzene, Auramine, Azoflavin, Chrysaniline, Martius Yellow, Naphthol Yellow, Primuline, Quinoline Yellow, Sudan Yellow, & Yellow T; also Sudan Yellow G, fat dye

## Aniline Fluoride.—see Aniline Hydrofluoride

## Aniline Green.—Fat dye

Stearate of a not fully defined, green, basic, aniline dye.—*Uses*: Coloring oils and fats.

## Aniline Hydrobromide Merck (10)

(Aniline Bromide).— $\text{C}_6\text{H}_5\text{NBr}$ , or,  $\text{C}_6\text{H}_5\text{NH}_2\text{HBr}$ .—Grayish-wh. to yellowish cryst.—*Sol.* W., A.

## Aniline Hydrochloride Merck.—Pure, cryst. (2)

("Aniline Salt"; Aniline Chloride).— $\text{C}_6\text{H}_5\text{NCl}$ , or,  $\text{C}_6\text{H}_5\text{NH}_2\text{HCl}$ .—Alm. colorl. cryst.—*Sol.* W., A.—*Melt.* 190-192° C.

## Aniline Hydrofluoride Merck (3)

(Aniline Fluoride).— $\text{C}_6\text{H}_5\text{NH}_2\text{HF}$ .—Alm. colorl. cryst.—*Sol.* W.

## Aniline Hydrosilicofluoride Merck (18)

(Aniline Silicofluoride).—React.-prod., water & aniline silicofluoride.— $(\text{C}_6\text{H}_5\text{NH}_2)_2\text{H}_2\text{SiF}_6$ .—Wh. to grayish-wh. cryst. powd.—*Sol.*, v. sl. W. & A.

## Aniline Nitrate Merck (5)

$\text{C}_6\text{H}_5\text{N}_2\text{O}_3$ , or,  $\text{C}_6\text{H}_5\text{NH}_2\text{HNO}_3$ .—Colorl. to yellowish cryst.—*Sol.* W., A.—Decomp. at 190° C.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Aniline Oil*.—see **Aniline**

*Aniline Orange*.—see **Victoria Orange**

**Aniline Oxalate Merck** (6)  
 $(C_6H_5NH_2)_2 \cdot C_2H_2O_4$ .—Wh. cryst.—*Sol.* W.—*Caut.* Keep in dark amber bot.

*Aniline Pink*.—see **Safranine**

*Aniline Red*.—see **Fuchsine**

*Aniline Rose*.—see **Safranine**

*Aniline Salt*.—see **Aniline Hydrochloride**\*

*Aniline Silicofluoride*.—see **Aniline Hydrosilicofluoride**

**Aniline Sulphate Merck** (2)  
 $(C_6H_5NH_2)_2 \cdot H_2SO_4$ .—Wh. cryst.—*Sol.* W., A.—*Nervine*.—*Uses*: Chorea, epilepsy.—*Dose*,  $\frac{3}{4}$ –1½ grains (0.05–0.1 Gm.).—*Max. D.* 3 grains (0.2 Gm.) single; 6 grains (0.36 Gm.) daily.—*Caut.* Keep in amber bot.

*Aniline Tribromide*.—see **Tribromaniline**

*Aniline Yellow*.—see **Amidoazobenzene**

*Anilineazobetanaphthol*.—see **Sudan Yellow**

*Anilineazoresorcinol*.—see **Sudan Yellow G**

### **Anilpyrine**

By fusing together 188 parts antipyrine and 135 parts acetanilide.—Wh., cryst. powd.—*Melt.* 75° C.—*Sol.*, eas. W.—*Antipyr.*; *Antineuralg.*—*Uses*: Influenza and in artic. rheumat.—*Dose* 8 grains (0.5 Gm.) single; 15–30 grains (1–2 Gm.) daily.

*Animé*.—see **Copal**

*Anisaldhyde*.—see **Aldehyde Anisic**

**Anise**.—*U. S. P.*

(Aniseed).—Fruit of *Pimpinella Anisum*, L. Umbelliferae, fr. cultivated plants.—*Habit.*: Western Asia; Egypt; cultiv. in Southern Europe, India, and U. S.—*Etymol.*: “*Pimpinella*,” fr. “*bipinnella*,” i.e., twice-pinnate leaves—literally, “two-winged little plant.” “*Anisum*,” fr. Grk. “*anison*,” “*anethon*,” fr. Arabic “*anisum*,” classic name of anise.—*Constit.*: Volat. oil; resin; fixed oil.—*Aromat.*; *Carminat.*; *Expector.*; *Stim.*; *Stomachic.*—*Uses*: Colic; increasing milk secretion; quieting babies.—*Techn.*, in manuf. of volat. oil; condiment & flavor.—*Dose*: Fld. extr., 30–60 ℥ (2–4 Ce.).

*Anise Camphor*.—see **Anethol, solid**

**Anisidine (Ortho-) Merck** (10)  
 (Orthomethylaminophenol).—Fr. orthonitro-aniline by reduct.— $C_6H_4NO$ , or  $C_6H_4(NH_2)OCH_3$ .—Yellowish to brownish-red liq.—*Boil.* 228° C.

**Anisol Merck** (20)  
 (Anisool; Methylphenylester).—Fr. anisic acid, by baryta.— $C_7H_8O$ , or  $C_6H_5OCH_3$ .—Colorl., ether. liq.—*Sp. Gr.* 0.997 at 15° C.—*Sol.* A.—*Boil.* 150–156° C.

*Anisol Orthiodide*.—see **Iodanisol**

### **Anisoyl Peroxide**

Obt. by act.  $H_2O_2$  on anisoyl chloride in acetone solut. —  $OC_6H_4C_6H_4CO.O.O.O.CC_6H_4OCH_3$ .—Gran., wh., tastel., odorl. powd.—*Melt.* 125° C.

### **Anatto**

(Arnotta; Annotta).—Fr. seeds *Bixa Orellana*, L.—*Sol.* A., E., & oils.—*Uses*: Colors silk orange in hot soap bath.

*Annidalin*.—see **Thymol Iodide**

*Annoita*.—see **Anatto**

*Anodynine*.—see **Antipyrine**

*Anlacidin*.—see **Calcium Saccharate**

### **Anthemis**.—*U. S. P.*

(Roman Chamomile; Ground Apple; Chamomile; Garden Chamomile).—Dried flower heads of *Anthemis nobilis*, L. Compositae, fr. cultivated plants.—*Habit.*: Southern and Western Europe; cult. in Germany, Great Britain, France, Belgium; somewh. naturalized in the U. S.—*Etymol.*: “*Chamomile*,” fr. Grk. “*chamai*,” on the ground, and “*melon*,” apple, i.e., earth-apple—the small round buds smell like apples; also Grk. “*anthemis*,” fr. “*anthos*,” flower, i.e., its numerous flowers. “*Nobilis*,” famous, noble, i.e., its handsome yellow flowers.—*Constit.*: Volat. oil; bitter principle (anthemide acid); anthemene (anthemidin),  $C_{18}H_{36}$ ; resiu; tannin.—*Antispasmod.*; *Diaphor.*; *Stim.*; *Tonic*; *Carmin.*; *Emmenag.*; warm infus. is Emetic.—*Uses*: Colds, fevers, worms, etc.—*Doses*: 15–60 grains (1–4 Gm.).—*Aqu. extr.*, 5–15 grains (0.3–1 Gm.).—*Fld. extr.*, 30–60 ℥ (2–4 Ce.).

*Anthion*.—see **Potassium Persulphate**

*Anthocyanin Paper*.—see **Dahlia Paper**

### **Anthophylli**

(Mother-cloves; Clove Fruit).—Almost or quite ripe fruit of *Caryophyllus aromaticus*, L. Myrtaceae.—*Habit.*: Molucca Islands.—*Etymol.*: Grk. “*anthos*,” a flower, and “*phyllon*,” a leaf.—Fruit resembles cloves, but is 3–4 times larger, being thicker, lighter, and somewhat longer; odor weaker.—*Constit.*: Ethereal oil; eugenol,  $C_{10}H_{12}O_2$ .—*Uses*: As spice and condiment.

**Anthracene Merck**.—Purified, sublimed (4)  
 (Paranaphthalene).—Fr. coal tar.— $C_{14}H_{10}$ , or  $C_{14}H_4(CH_2)_2C_{14}H_4$ .—Yellow cryst.; fluoresce blue; change in sun to para-anthracene.—*Sol.* A., E., C.; benzene, carbon disulph.—*Melt.* 213° C.—*Boil.* 363° C.—*Uses*: Manuf. alizarin & alizarin dyes.—*Caut.* Keep fr. light.

**Anthragallol Merck** (75)

(Trioxyanthraquinone [1:2:3]).—React.-prod. of benzoic, gallic, & sulphuric acids.— $C_{14}H_8O_3$ , or  $C_{14}H_2(OH)_3O_2$ .—Brown powd.—*Sol.* A.—*Subl.* 290° C.—*Uses*: Dyeing.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Anthraglorhamnin Tschirch-Merck** (30)  
Glucosidal substance fr. *Rhamnus frangula*, L.  
—Brown powd.—*Sol.* A.—Cathartic.

**Anthraglorhein Tschirch-Merck** (250)  
Glucosidal substance fr. var. spec. of rhubarb.  
—Dark-brown powd.—*Sol.* A.—Cathartic.

**Anthraglosagradin Tschirch-Merck** (85)  
Glucosidal substance fr. *Cascara sagrada*.—  
Brown powd.—*Sol.* A.—Cathartic.

**Anthraglosennin Tschirch-Merck** (225)  
Glucosidal substance fr. *Cassia angustifolia*,  
Vahl. Dark-brown powd.—*Sol.* A.—Cathartic.

**Anthrappurpurine**.—see **Purpurine Red**

**Anthrappurpurine Diacetate**.—see **Purgatin**

**Anthraquinone Merck**.—Pure (8)  
By oxid'g glacial-acetic-acid solut. anthracene w.  
potass. dichrom.— $C_{14}H_{10}O_2$ , or,  $C_6H_4(CO)_2C_6H_4$ .  
—Yellow need.—*Sol.* A., sl. in B.—*Melt.* 273° C.  
Subl. at higher temp.—*Uses*: Mannf. alizarin,  
& dyes; *techn.*, as reag. for detect. water in alcoh.

do. Merck.—Highest Purity, sublimed (15)

**Anthrarobin Merck** (15)  
(Dioxyanthranol; Desoxy- or Leuco-alizarin;  
Anthraroabin).—Fr. alizarin by reduct.—  
Cryst. prin. of madder.— $C_{14}H_{10}O_3$ , or,  $C_6H_4$ -  
 $Cl(OH)CH.C_6H_2(OH)_2$ .—Granular powd.—*Sol.*,  
weak alk. solutions; sl. in C. & E.; hot A.—  
Deoxidiz.; Antisept.—*Uses*: *Extern.*, Instead of  
chrysarobin in skin dis. espec. psoria., tinea tons.,  
pityria. versic., & herpes.—*Appl.* 10 to 20%  
oint. or alcoh. solut.

**Anthrasol** (11)  
"Purified, colorl. tar."—Thin, light-yellow, oily  
liq.—*Misc.*, absol. A., acetone, oils, petrolatum,  
& o. fats; insol. W.—Dermic.—*Uses*: Herpes,  
eczem., pruritus, & var. chron. & parasitic skin  
diseases.—*Appl.*, pure; or in mixt. w. alcoh.,  
oils, or oints. (5–20%).

**Anthriscus**  
(Chervil; Beaked Parsley; *Herba Cerefolii*).—  
Dried plant *Anthriscus cerefolium*, Hoffm.  
Umbellifera.—*Habit.*: Europe; sparingly natur.  
in eastern U. S.—*Etymol.*: "Anthriscus" is the  
Grk. name for chervil. "Cerefolium," modified  
fr. "Cherophyllum," fr. Grk. "chairein," to  
rejoice, and "phyllon," leaf, *i.e.*, the leaves are  
numerous.—*Constit.*: Volat. oil.—Antiscorbutic;  
Diuret.; Emmen.; Deobstruent.—*Uses*: *Ex-*  
*tern.*, appl. to bruises, local tumefactions, etc.  
Also in cookery as addition to soups, etc.

**Anthyllis**  
(Staunchwort; Woundwort).—Flowers of *Anth-*  
*yllis vulneraria*, L. Papilionaceae.—*Habit.*:  
Europe; Western Asia; Northern Africa.—  
*Etymol.*: Fr. Grk. "anthos," flower, and "julos,"  
beard, *i.e.*, the calyx is hairy.—Vulnerary; Styp.

**Antiarthrin** (32)  
Condensation product of tannin and saligenin  
—Chocolate-brown, cryst. powd.—Diuret.; An-  
tipyr.; Analg.; Uratolytic, & Antiarthritic.—*Sol.*  
A., and alkalies.—*Dose* 90–150 grains (6–10 Gm.)  
daily in powd. or pill

**Antichlor**.—see **Sodium Thiosulphate**

**Antichloren**  
By act. of  $HgI_2$  on peptone in pres. of  $HgCl_2$ .—  
*Uses*: Syph.—*Dose*  $\frac{1}{6}$  grain (0.01 Gm.) p. d. in  
pill; or hypoderm. in 2% solut.

**Antidiphtherin Klebs**  
"Ten-fold concentration" of a protein solut. obt.  
fr. cultures of diphtheria bacilli on fluid culture  
media.—*Uses*: In pharyngeal and laryngeal  
diphtheria, by painting on affected parts.

**Antimetic Root**.—see **Cyperus**

**Antifebrin Kalle** (4)  
(Phenylacetamide).— $C_8H_9NO$ , or,  $C_6H_5.NH$ -  
 $CO.CH_3$ .—Wh., micaceous, odorl., neutral,  
permanent laminae; sly burning taste.—Anti-  
pyr.; Analg.; Antirheum.; Sedat.; Antisept.—  
*Uses*: *Intern.*, febrile affect., rheum., headaches,  
neural., &c.—*Extern.*, in fine powd., inst. of  
iodoform.—*Dose* 3–10 grains (0.2–0.6 Gm.).—  
*Max. D.* 15 grains (1 Gm.) single; 60 grains (4  
Gm.) daily.—*Incomp.*, nitrous ether; alkali  
bromides & iodides in aqu. solut.; hydrated  
chloral; carbolic acid; resorcinol; thymol.

**Antifebrin Salicylate**.—see **Salifebrin**

**Antifungin**.—see **Magnesium Borate**

**Antihypo**.—see **Potassium Percarbonate**

**Antimonial Glass**.—see **Antimony Sulphide, Vit-**  
**reous**

**Antimonial Powder**.—see **Calcium Phosphate,**  
**Antimoniated**

**Antimonial Saffron**.—see **Antimony Oxide,**  
**Brown**

**Antimony Merck**.—Cryst. & powd. (1)  
(Stibium; Regulus of Antimony).—*Etymol.*:  
Fr. Grk. "anti," against, and "monachon," the  
monk, *i.e.*, antimony was used in leprosy, which  
was a frequent affection among unclean monks  
and hermits. "Stibium," fr. Grk. "stibi" or  
"stimmi," antimony sulphide.—Metal element.  
—Sb.—Silver-wh., lustr., hard, brittle metal;  
scale-like cryst. struct.—*Melt.* 425° C.—*Uses*:  
Rarely medicinally.—*Techn.*, in manuf. alloys  
(Britannia metal, hard lead, white metal, bear-  
ing metal); manuf. thermoelectric piles; black-  
ening iron; coating metals, etc.—*Antid.*, vomit-  
ing or stomach siphon, strong decoct. oak bark  
or nutgalls, ice pills, mucilag. drinks, opium.

do. Merck.—Highest Purity (3)

**Antimony Alginate**  
(Alginoid Antimony).—Fr. sod. alginate & anti-

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



mony chloride; 4.5% Sb.—Wh. powd.—*Sol.*, ammonia (solut. is misc. w. W.).

**Antimony Anhydride.**—see **Antimony Oxide, Antimonic**

**Antimony Arsenate Merck** (5)

Mixt. of antimonite oxide with 20% arsenic acid.—Heavy, wh. powd.—*Uses*: Syph. skin erupt.—*Dose*  $\frac{1}{100}$ – $\frac{1}{30}$  grain (0.0006–0.002 Gm.) 2–3 t. p. d.—*Max. D.*  $\frac{1}{30}$  grain (0.002 Gm.) single;  $\frac{1}{3}$  grain (0.02 Gm.) daily.

**Antimony Arsenite Merck** (5)

Mixt. eq. parts antimonite oxide and arsenous acid.—Fine wh. powd.—*Uses*: Heart affections, var. neuroses, asthma, and skin diseases.—*Dose*  $\frac{1}{100}$ – $\frac{1}{30}$  grain (0.0006–0.002 Gm.) 2–3 t. p. d.—*Max. D.*  $\frac{1}{30}$  grain (0.002 Gm.) single;  $\frac{1}{3}$  grain (0.02 Gm.) daily.

**Antimony Bromide Merck** (8)

(Antimony Tribromide).— $\text{SbBr}_3$ .—Deliq. yellow cryst. mass.—*Sol.*, carbon disulph.—*Melt.* 90–94° C.—*Caut.* Keep well stoppered.

**Antimony Chloride Merck.—Antimonic** (5)

(Antimony Pentachloride, or Perchloride).— $\text{SbCl}_5$ .—Reddish-yellow, oily, caustic liq.; offensive odor; fum. in moist air; solidifies by absorp. of moisture; decomp. by much water into antimonie acid and hydrochloric acid.

**Antimony Chloride Merck.—Antimonous.—Pure, cryst.** (2)

(Antimony Trichloride).— $\text{SbCl}_3$ .—Colorl., transl., cryst. mass.—*Sol.* A., carbon disulph.—*Melt.* 72° C.—*Boil.* 230° C.—*Uses*: *Extern.*, caustic; also pharm. & techn.

**do.—Solution** (1)

(Butter of Antimony).—Cont.  $\text{SbCl}_3$ .—Clear, oily, str. caustic liq.—*Sp. Gr.* 1.35 = 38° Bé.—*Caustic.*—*Uses*: *Extern.*, snake bites, poisoned wounds, syphil. ulcers, indol. ulc., fungous flesh, warts, & excrescences.—*Techn.*, bronzing iron (specially gun barrels), mordant for patent leather, coloring zinc black, mordant for silver, & manuf. lakes (particularly fr. dye woods).

**Antimony Chloride, Basic.**—see **Antimony Oxychloride**

**Antimony, Diaphoretic.**—see **Potassium Antimonate, Purified**

**Antimony Fluoride Merck.—Dry** (5)

$\text{SbF}_3$ .—Grayish-wh. cryst.—*Sol.* W.—*Uses*: Dyeing, in form of double salt, antimony fluoride and ammonium sulphide.

**Antimony Iodide Merck** (18)

(Antimony Triiodide).— $\text{SbI}_3$ .—Red cryst.; decomp. by water w. liberation of oxyiodide; volatil. at h. temp.—*Sol.*, carbon disulph.—*Melt.* 165° C.—*Alter.*—*Uses*: Chron. bronchial catarrh.

—*Extern.*, in pustular eruptions, in 1:5–10 oint.—*Dose*  $\frac{1}{6}$ – $\frac{1}{4}$  grain (0.01–0.015 Gm.), in pills.

**Antimony Oxalate Merck** (2)

$\text{Sb}_2\text{O}(\text{C}_2\text{O}_4)_2 + \text{H}_2\text{O}$ .—Wh. powd.—*Sol.*, acids.—*Uses*: Mordant in dyeing and printing, particularly in form of double salt, potassium and antimony oxalate.

**Antimony Oxide Merck.—Antimonic** (2)

(Antimony Pentoxide; Antimonic, or Stibie, Anhydride).— $\text{Sb}_2\text{O}_5$ .—Wh. powd.—*Sol.*, sl. in hydrochl. acid and W.—*Uses*: Formerly used medicinally like golden sulphide antimony, and tartar emetic; now obsolete.

**Antimony Oxide Merck.—Antimonous** (2)

(Antimony Trioxide; Anhydrous Antimonous, or Stibious, Acid).— $\text{Sb}_2\text{O}_3$ .—Wh., cryst. powd.; yellow when hot.—*Sol.*, warm sat. solut. of tartaric acid and alkali tartrates; dil. hydrochl. acid; conc. solut. alkalies; insol. W.—*Melt.*, at dark-red heat; cryst. on cool.—*Expector.*; Emetic.—*Uses*: Chiefly pharm. & techn.; powerful reducing agent. Source of tartar emetic.—*Dose* 3 grains (0.2 Gm.) 5 or 6 t. p. d.

**Antimony Oxide Merck.—Antimonous.—Reagent** (8)

$\text{Sb}_2\text{O}_3$ .—Wh. powd.—*Sol.* HCl, & soluts. tartaric acid, alkali bitartrates, KOH, & NaOH; insol. W.—*Tests*: (A) 1 Gm. + 3 Cc. HCl (sp. gr. 1.19) + 3 Cc. solut.  $\text{SnCl}_2$ —no darker color within 1 hr.—(*Heavy Met.*) 1 Gm. + 30 Cc. solut. NaOH (sp. gr. 1.3) and heat + 20 Cc.  $\text{H}_2\text{O}$  + aqu.  $\text{H}_2\text{S}$ —no white or brownish-black ppt.—(C) 1 Gm. + 30 Cc. solut. NaOH (sp. gr. 1.3) & heat + 70 Cc.  $\text{HNO}_3$  (sp. gr. 1.153), filter, & add solut.  $\text{AgNO}_3$ —at most only sl. turb., but no ppt.—*Uses*: Reducer; detect. alkaloids & phenols.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Antimony Oxide Brown Merck** (2)

(Antimonial Saffron; Crocus of Antimony; Crocus Metallorum).—Consists chiefly of antimony oxysulphide,  $\text{Sb}_2\text{O}_3 + \text{Sb}_2\text{O}_2$ .—Grayish-brown powd.—*Sol.*, hydrochloric acid.

**Antimony Oxide White.**—see **Potassium Antimonate, Purified**

**Antimony Oxychloride Merck** (5)

(Powder of Algaroth; Basic Antimony Chloride; Mercurius Vitæ).— $\text{SbOCl}$ .—Wh., cryst. powd.—*Sol.*, acids; insol. W.—*Uses*: Emetic, even in small dose, but now obsolete. Chiefly used now as source of tartar emetic.

**Antimony Oxyiodide Merck** (50)

$(\text{SbOI})_2\text{Sb}_2\text{O}_3$ .—Light-yellow cryst. powd.—Insol. W.

**Antimony Oxysulphide.**—see **Antimony Sulphurated**

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Antimony Penta- (or per-) chloride.**—see **Antimony Chloride, Antimonie**

**Antimony Pentatol per-sulphide.**—see **Antimony Sulphide, Golden**

**Antimony Pentoxide.**—see **Antimony Oxide, Antimonie**

**Antimony Sulphate Merck** (3)

(Antimonous Sulphate; Antimony Trisulphate).— $\text{Sb}_2\text{SO}_4$ . Wh. powd.—*Sol.*, acids.

**Antimony Sulphide Black Merck.**—Pure.—(Purif., U. S. P. 1890) (1)

(Antimonous Sulphide; Antimony Trisulphide; Black Antimony).— $\text{Sb}_2\text{S}_3$ .—Gray-black powd., or steel-gray, metal-like masses, w. striped, cryst. fracture.—*Sol.*, hydrochl. acid.—*Melt.*, below red heat.—Diaphor.; Alter.—*Uses*: Scrof., chr. rheum., gland. obstruct., & cutan. dis.—*Techn.*, in pyrotech. in Bengal fires.—*Dose* 5–15 grains (0.3–1 Gm.), in powd. or bolus. In veterin. medicine, 8–15 grains (0.5–3 Gm.) to small animals, and 120–240 grains (8–15 Gm.) to larger animals.

**Antimony Sulphide Golden I Merck** (2)

(Antimonie Sulphide; Penta- or Per-sulphide).—By decomp. sodium thioantimonate w. dil. sulphuric acid.— $\text{Sb}_2\text{S}_5$ .—Fine, orange-yellow powd.; odorl.—*Sol.*, dil. solutions of alkalies, alkali carbonates & sulphides.—Alter.; Diaphor.; Emetic.; Expector.—*Uses*: Cutan. erup., bronch. catarrh, syph., scrof., rheumat., gout.—*Dose*  $\frac{1}{6}$ – $1\frac{1}{2}$  grains (0.01–0.1 Gm.) 2–3 t. p. d., usually in powd.—*Incomp.*, acids, sour food, acid syrups, metal. salts.—*Caut.* Keep fr. light.

**Antimony Sulphide Golden II Merck** (1)

*Uses*: Veter., as Expector.; Galactag.—*Dose*, horses and cattle,  $2\frac{1}{2}$ –6 drams (10–25 Gm.); sheep and pigs, 30–75 grains (2–5 Gm.); dogs, 1–10 grains (0.06–0.6 Gm.); cats and fowl,  $\frac{1}{6}$ –1 grain (0.01–0.06 Gm.).

**Antimony Sulphide Golden III Merck** (1)

*Uses*: Color. rubber goods.

**Antimony Sulphide, Red.**—see **Antimony, Sulphurated**

**Antimony Sulphide, Vitreous** (1)

(Vitreous Antimony; Antimonial Glass).—By roasting antimony sulphide, then fusing the product w. antimony sulphide.—Transp., dark, ruby-red mass.—*Uses*: Tinting glass & porcelain yellow; formerly used medicinally also, but now obsolete.

**Antimony Sulphurated Merck** (2)

(Kermes Mineral; Red Antimony; Red Antimony Sulphide; Antimonous Oxy-sulphide).—React.-prod., antimony sulphide, alkaline carbonates & dil. sulphuric acid.— $\text{Sb}_2\text{S}_3$  &  $\text{Sb}_2\text{O}_3$  mixed.—Amorph., red powd., lighter on expos. to light, odorl.; tastel.—*Sol.*, hydrochl. acid;

insol. W., A.—Alter.; Diaphor.; Emetic.—*Uses*: Cutaneous dis., diseases of respiratory passages, & syph.; alternative generally.—*Dose* 1–2 grains (0.06–0.12 Gm.) 2 t. p. d., in pill. As emetic 5–20 grains (0.3–1.3 Gm.)—*Incomp.*, acids & acid drinks or food.—*Caut.* Keep fr. light.

**Antimony Sulphurated Cluzel-Merck** (4)

Prepared accord. to a special formula by Cluzel.—Fine reddish-brown powd.

**Antimony Tannate Merck** (4)

Gray to brown powd.—*Sol.*, acids.

**Antimony Tartrate**

( $\text{Sb}(\text{O})_2\text{C}_4\text{H}_4\text{O}_6 + \text{H}_2\text{O}$ ).—Wh., cryst. powd.—*Uses*: Intern., inst. of arsenic, in skin dis.—*Dose*  $\frac{1}{10}$  grain (0.006 Gm.) 3–5 t. p. d.

**Antimony Tribromide.**—see **Antimony Bromide**

**Antimony Trichloride.**—see **Antimony Chloride, Antimonous**

**Antimony Triiodide.**—see **Antimony Iodide**

**Antimony Trioxide.**—see **Antimony Oxide, Antimonous**

**Antimony Trisulphate.**—see **Antimony Sulphate**

**Antimony Trisulphide.**—see **Antimony Sulphide, Black**

**Antimony & Potassium Oxalate Merck** (6)

$\text{SbK}_3(\text{C}_2\text{O}_4)_3 + 6\text{H}_2\text{O}$ .—Wh. powd.—*Sol.* W.—*Uses*: Dyeing and printing; substitute for tartar emetic as mordant.

**Antimony & Potassium, Sulphurated.**—see **Potassium & Antimony, Sulphurated**

**Antimony & Potassium Tartrate Merck.**—Highest Purity, Medicinal, cryst. or powd. (1)

(Tartar Emetic; Tartrated Antimony).— $2\text{K}(\text{SbO})\text{C}_4\text{H}_4\text{O}_6 + \text{H}_2\text{O}$ .—Transparent crystals, turning white & opaque on exposure, or fine wh. powd.; odorless; sweetish metallic taste.—*Sol.* 17 W., 20 G. at  $15^\circ\text{C}$ . (15.5 W. at  $25^\circ\text{C}$ ., and 3 boil. W.—U. S. P.); insol. A.—Loses water of cryst. at  $110^\circ\text{C}$ .—Alter.; Diaphor.; Expector.; Emetic.; Counter-irrit.—*Uses*: Intern., as expector. in acute bronch. catarrh, bronchial & pulmon. affec., &c.—*Extern.*, mening., &c.—Also pharm.—*Doses*: Alter.  $\frac{1}{30}$ – $\frac{1}{15}$  grain (0.002–0.004 Gm.); diaphor. & expector.  $\frac{1}{12}$ – $\frac{1}{6}$  grain (0.005–0.01 Gm.); emet.  $\frac{1}{2}$ –1 grain (0.03–0.06 Gm.) every 10–15 min. as required.—*Max. D.* 3 grains (0.2 Gm.) single; 10 grains (0.6 Gm.) daily.—*Appl.*, in certain cutan. dis., as alopecia, aene rosacea, psoriasis, in 1:4 oint.; in gonorrh., in 0.1–0.2:100 inject.; in corneal opacities in 0.05–0.1:10 oint.—*Antid.*, tannic acid in solut., freely stimulants & demulcents; ice; opium; stomach pump.—*Caut.* Keep well stoppered. Poison!

**Antimony & Sodium, Sulphurated.**—see **Sodium & Antimony, Sulphurated**

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Antinonnin** (2)  
(Sodium Orthodinitroresylate).—Yellow, odorl., non-volat. paste.—*Sol.* W.—*Antisept.*; *Anticrypt.*; *Bacteric.*—*Uses:* Wood-preservative & insecticide in 1% solut.

**Antisonin** (42)  
(Nosophen-Sodium; Sodium Tetraiodophenolphthalein). —  $(C_6H_2O_2Na)_2C_2O_3C_6H_4O$ . — Blue powd.—*Sol.* W.—*Antisept.*—*Uses:* Succeedan. for iodoform as surgic. antisept. in 0.1–0.5% solut.; in affect. of mouth, nose, & throat, particularly diphtheria, as wash in 0.1–0.5% solut.; in cystitis in 0.1–0.5% solut.

**Antipyonin**  
(So-called "Neutral Sodium Tetraborate").—Eq. parts boric acid & borax fused together.—Fine powd.—*Uses:* Insuffl. in inflam. of cornea and conjunctiva, and in otitis.

*Antipyreticum.*—see **Antipyrine**

**Antipyrine Merck** (5)  
(Dimethyloxyquinizine; Phenazone; Phenyl-dimethylpyrazole; Analgesine; Metozine; Parodyne; Phenylene; Anodynine; Phenylene; Antipyreticum; Oxydimethylquinizine; Pyrazine; Pyrazoline; Sedatine).—Organic base fr. oxyphenylmethylpyrazole.— $C_{11}H_{12}N_2O_2$  or,  $(CH_3)_2N.C(CH_3).CH.CO.N(C_6H_5)$ .—Fine, wh., cryst. powd.—*Sol.* C.; 1 W.; 2 A.; 50 E.; (2 C. at 15° C., or, in less than 1 W., in 1 A., 1 C., & 30 E., at 25° C.—U. S. P.).—*Melt.* 112–113° C.—*Antipyr.*; *Analg.*; *Sed.*; *Styp.*; *Antisept.*—*Uses:* Locomotor ataxia, rheumat., diab., cephalal., lumbago, sciatic, gout, hay fever, infant. convuls., nerv. urticaria, nocturn. emis., chorea, whoop-cough, epilepsy, pleurisy, influenza, &c.; epistaxis.—*Doses:* 5–15 grains (0.3–1 Gm.) in solut., w. syrup or elixir, 4 or 5 t. p. d.; children, as many decigrammes (0.1 Gm.=1½ grains) as years old, & as many centigrammes (0.01 Gm.=1⁄6 grain) as months old, 2–5 t. p. d. As enema, in double the dose per os. *Subcutan.*, 15–30 M (1–2 Cc.) of a 1:1 aq. solut. in neuralg., myalg., renal & biliary colic, over seat of pain.—*Max. D.* 30–60 grains (2–4 Gm.).—*Appl.* 5% solut. or pure, as styptic; as 2:15 oint. in hemorrhoids.—*Antid.*, castor oil, strychn., atropine, digitalis; oxygen in cyanosis; maintain body heat.—*Incomp.*, acids; alkalies; alum; ammonia water; amyl nitrite; benzoates; betanaphthol; bromine; carbolic acid; calomel; hydrated chloral; copper sulphate; chromic acid; cinchona alkaloids; euphorin; ferric chloride; ferrous sulphate; hydrocyanic acid; iodides; iodine; lead subacetate; mercuric chloride; orthoform; potassium permanganate; pyrocatechin; pyrogallol; resorcinol; sodium bicarbonate; sodium salicylate (in powder); solution arsenic and mercury iodides; spirit nitrous ether (unless prescribed with sodium bicarbonate); syrup ferrous iodide; tartar emetic; tannic acid; thymol; urethane; infusions of catechu, cinchona, rose

leaves, and uva ursi; tinctures of catechu, ferric chloride, cinchona, hamamelis, iodine, kino, and rhubarb.—*React.* Solut's colored deep red by ferric chloride; bluish-green by nitrous acid.

*Antipyrine Acetylsalicylate.*—see **Acopyrine; Pyrosal**

*Antipyrine Amygdalate.*—see **Tussol**

*Antipyrine Carbolate.*—see **Phenopyrine**

*Antipyrine Iodide.*—see **Iodopyrine**

*Antipyrine Mandelate.*—see **Tussol**

*Antipyrine Para-amidobenzenesulphonate.*—see **Sulcopyrine**

*Antipyrine Phenate.*—see **Phenopyrine**

*Antipyrine Resorcyate.*—see **Resalgin**

*Antipyrine Salicylacetate.*—see **Acopyrine; Pyrosal**

*Antipyrine Salicylate.*—see **Salipyrine**

*Antipyrine-quinine.*—see **Quinopyrine**

*Antiseptin.*—see **Bromacetanilide, Mono-**

*Antiseptol.*—see **Cinchonine Iodosulphate**

**Antispasmin Merck** (5)  
(Narcaine-sodium & Sodium Salicylate).— $C_{23}H_{26}NO_8Na + 3NaC_2H_5O_2$ . — Wh., sl. hygrosc. powd.; 50% pure narcaine.—*Sol.* W.—*Antispasmod.*; *Sed.*; *Hypn.*—*Uses:* In children's dis.; whoop-cough, laryng. stridulus, irrit. coughs, &c.—*Dose*, of 5% solut. in sweetened W. or in cherry-laurel water, 3–4 t. p. d.; under 1½ yr. 3–5 drops, 1½ yr. 5–8 drops, 1 yr. 8–10 drops, 2 yrs. 10–12 drops, 3 yrs. 15–20 drops; older children take 10–20 drops of 10% solut.—*Caut.* Keep dry & fr. air.

### Antithermin

(Phenylhydrazinelevulinic Acid). — Colorl., odorl., tastel., cryst. leaflets.—*Sol.* A., E., dil. cold W.; v. diffic. cold W., more read. hot W.—*Antipyr.*; *Antisept.*—*Dose* 3–6 grains (0.2–0.36 Gm.).

### Antithyroidin Merck

(75)

A "thyroid serum" obt. fr. blood serum of sheep fr. which the thyroid glands have been removed, & preserved by the addition of 0.5% carbolic acid.—*Uses:* Exophthalmic goiter (Graves' disease).—*Dose* 8 M (0.5 Cc.) to begin with, 3 t. p. d., increas. the dose by 8 M (0.5 Cc.) ea. day until the dose reaches 60 M (4 Cc.) single, & 180 M (12 Cc.) p. d., & then in similar manner reducing to the original dose.

*Antilysin, Antistreptococcic.*—see **Serum, Antistreptococcic**

### Antitussin

(12)

5% diffuordiphenyl oint.—Light-yellow oint.; intense, but pleas. odor.—*Antispasmod.*; *Sedat.*—

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacon; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

*Uses* Whoop-cough, bronch., &c.—*Appl.*, by  
inunction [60-75 grains [1-5 Gm.]] rubbed into  
neck, chest, or back.

## Anusol

Supposit. cont'g bism. iodoresorcinolsulphonate,  
zinc oxide & bds. Peru.—*Uses*: Hemorrhoids,  
anal fissures, &c.

## Apiin Merck

(120

Glucoside fr. *Apium Petroselinum*, L. (Parsley).  
— $C_{27}H_{42}O_{16}$ .—Yellowish cryst. powd.—*Sol.*, hot  
W., A., sl. in cold W.; insol. L.

## Apiol Merck.—Cryst., white

(60

(Parsley Camphor) Stearoptene fr. oil of  
*Petroselinum sativum*, Hoffm. (Parsley).  
— $C_{12}H_{14}O_4$ .—Wh. cryst.; faint parsley odor.—*Sol.*  
A., E., oils; alm. insol. W.—*Melt.* 30° C.—*Boil.*  
294° C.—*Emmen.*: Antiper.—*Uses*: Dysmenor.  
& malaria.—*Doses*: Emmen. 3-5 grains  
(0.2-0.3 Gm.) 2-3 t. p. d., in caps.; as antiper.,  
4-15 grains (0.25-1 Gm.).—*Inf.*, subcut., 15  $\mathfrak{m}$   
(1 Ce.) daily of 20% oily solut.—*Max. D.* 15  
grains (1 Gm.) single; 60 grains (4 Gm.) p. d.

### do. Merck.—Distilled

(60

Volat. oil fr. *Petroselinum sativum*, Hoffm.  
(Parsley)—Yellow liq.—*Sol.* A., E.—*Sp. Gr.*  
1.125-1.135 at 15° C.

### do. Merck.—Fluid, green

(6

Crude ether. oil of *Petroselinum sativum*,  
Hoffm. (Parsley).—Greenish, oily liq.—*Sol.* A.,  
E.—*Sp. Gr.* abt. 1.08 at 15° C.—*Emmen.*:  
Antiper.—*Uses*: Dysmenor., malar.—*Doses*: 5-  
10  $\mathfrak{m}$  (0.3-0.6 Ce.) 2 or 3 t. p. d., in caps.; in  
malar. 15  $\mathfrak{m}$  (1 Ce.); in dysmenor. & amenor.,  
5  $\mathfrak{m}$  (0.3 Ce.), best in caps.—*Max. D.* 15  $\mathfrak{m}$   
(1 Ce.) single; 30  $\mathfrak{m}$  (2 Ce.) daily.

## Apiolin Merck

(100

Fr. *Apiol*, green.—Yellow liq.—*Sol.* A.—*Sp. Gr.*  
1.125-1.135 at 15° C.—*Boil.* 280-300° C.—*Uses*:  
Dysmenor. without lesions of the pelvic  
organs, for regul. menstruation.—*Dose* 3  $\mathfrak{m}$   
(0.2 Ce.) in caps. 3 t. p. d., 3 days before men-  
sual period.

## Apium

(Celery).—Root and seeds of *Apium graveolens*,  
L. Umbelliferae.—*Habit.*: Southern Europe;  
cult. everywhere.—*Etymol.*: Grk. "apion" fr.  
Celtic "apon," water, referring to its habit.  
—Root is fusiform, white, and poisonous  
when wild; under cultivation, harmless.—  
Seeds are abt.  $\frac{1}{25}$  in. long, ovate, flattened,  
brown & smooth.—*Constit.*: Root: Mannite;  
inosite; mucilage; fat; volat. oil; apiol; sugar.—  
*Seeds*: Volat. oil; fixed oil.—*Aper.*: Diuret.;  
Antirheumat.; Nerve Tonic.—*Uses*: *Extern.*,  
as stim. anodyne poultice.—*Intern.*, in dropsy,  
Bright's dis. & intermit. fevers.—*Doses*: 15-30  
grains (1-2 Gm.).—*Alcoh. extr.*, 10-20 grains  
(0.6-1.3 Gm.).—*Fld. extr.*, 1-2 fl. dr. (4-8 Ce.).

*Aplopappus*.—see *Baylahuen*

## Apoatropine Merck.—Pure, cryst.

(4000

(Atropamine).—Fr. atropine, by splitting off  
water.— $C_{17}H_{21}NO_3$ , or  $C_{17}H_{21}NO_2 \cdot CO_2C_2H_5NO$ .  
—Wh. cryst. mass.—*Sol.* A, E, C; sl. in W.—  
*Melt.* 60-62° C.

## Apoatropine Hydrochloride Merck.—Cryst.

(3200

$C_{17}H_{21}NO_3 \cdot HCl$ .—Wh. cryst.—*Sol.* W, A.—*Melt.*  
237-239° C.

## Apoatropine Sulphate Merck.—Cryst.

(3200

$(C_{17}H_{21}NO_3)_2 \cdot H_2SO_4 + 5H_2O$ .—Wh. cryst.—*Sol.*,  
sl. in W.

## Apocodeine Hydrochloride Merck

(1425

$C_{18}H_{19}NO_3 \cdot HCl$ .—Yellow-gray to greenish-gray,  
hygros. powd.—*Sol.* W.—*Expector.* (Sed.; Hypn.);  
Laxat.—*Uses*: Chron. bronch., & o. bronch.  
affect. Acts like codeine, but weaker; prod.  
large secret. of saliva, & accel. perist. action of  
bowel.—*Dose*: Sedat., subcut. or per os,  $\frac{1}{2}$ -1  
grain (0.02-0.06 Gm.).—*Inf.*: Lax., 30  $\mathfrak{m}$  (2 Ce.)  
of a 1% aq. solut.—*Caution*. Keep fr. air & light.

## Apocynin Merck.—Cryst.

(5000

Non-glucosidal, prin. fr. *Apocynum cannabinum*,  
L. (Canadian hemp).—Wh. cryst.—*Sol.* A.

### do. —Amorphous

(24

Resinous subst. fr. *Apocynum cannabinum*, L.  
(Canadian hemp).—Amorph., resinous mass; or  
wh. to yellowish-wh. powd.—*Sol.* A., E., C.—  
Emetic; Expector.

## Apocynum.—U. S. P.

(Canadian Hemp; American Indian Hemp;  
Black Indian Hemp; Indian Physic; Dogbane).  
—Dried rhizome of *Apocynum cannabinum*, L.  
*Apocynaceae*.—*Habit.*: U. S.—*Etymol.*: Grk.  
"apo," away, from, & "kyon," dog, i.e., it kills  
or drives away dogs.—*Constit.*: Apocynin;  
apocynin (glucoside); resin; tannin; bitter  
extractive; starch.—*Emeto-Cathart.*; Diuret.;  
Cardio-Tonic; Expector.; Alterat.; Antiperiod.;  
Diaphor.; Antisyphil.; Sudorific.—*Uses*: Dropsy,  
Bright's disease, uremia, pleuritic exud.,  
& in various cardiac affect. The action is  
said to be very prompt, hence *Apocynum* is  
believed to be well adapted as a succedaneum  
for digitalis.—*Doses*: Antiperiod. and diuret.,  
2-5 grains (0.12-0.3 Gm.); emetic, 15-30 grains  
(1-2 Gm.).—*Alcoh. extr.*, 1-4 grains (0.06-0.25  
Gm.).—*Fld. extr.*, 5-20  $\mathfrak{m}$  (0.3-1.3 Ce.); *Max. D.*  
30  $\mathfrak{m}$  (2 Ce.) single, 90  $\mathfrak{m}$  (6 Ce.) daily.—*Tinct.*,  
5-60  $\mathfrak{m}$  (0.3-4 Ce.).

## Apocynum Androsæmifolium

(Dogbane; Spreading Dogbane; Bitter Root;  
Milk Ipecac; Wild Ipecac; Rheumatism Weed).  
—Root of *Apocynum androsæmifolium*, L.  
*Apocynaceae*.—*Habit.*: North America.—  
*Etymol.*: "Apocynum," see preceding. "Andro-  
sæmifolium," fr. Grk. "aner," man, "haina,"  
blood, & "folium," leaf, i.e., the leaves con-  
tain a red coloring matter.—Root is contorted,  
shrivelled longitudinally, often marked by

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



transverse fissures; bark, dark-brown extern., whitish intern., and bitter.—*Constit.*: Apocynin; apocynoin (glucoside); volat. oil; bitter extractive.—*Diaphor.*; *Diuret.*; *Cathart.*—*Uses*: Chronic constip. & dropsical conditions.—*Dose*: Fld. extr., 5–30 m (0.3–2 Ce.).

**Apolysin** (13)  
(Monophenetidin, or, Monoparaphenetidin Citrate; Monoctrylparaphenetidin).— $C_6H_5 \cdot OC_2H_5 \cdot NH(C_6H_7O_6)$ .—Wh. powd.; acid taste.—*Sol.* W., A., G.—*Melt.* 72° C.—*Antipyr.*; *Antisep.*; *Antineural.*—*Uses*: As of acetphenetidid.—*Doses*: 8–25 grains (0.5–1.6 Gm.) single; 90 grains (6 Gm.) daily.

**Apomorphine Hydrochloride Merck.**—Cryst. (150)  
Salt of artificial alkaloid fr. morphine.— $C_{17}H_{17}NO_2 \cdot HCl$ .—Minute, grayish-white, shin., acie, cryst.; fbl. bitter taste; green on expos. to light.—*Sol.*, abt. 50 W.; 50 A.; 100 G.; alm. insol. C., E.; (39.5 W., 38.2 A., 1861 E., & 3800 C., at 25° C.; & in 16 W. at 80° C., & 30 A. at 60° C., U.S.P.).—Decomp. bet. 200° & 210° C., U.S.P.—*Emetic*; *Expector.*; *Hypnotic*; *Cardiac Depressant.*—*Uses*: Emetic in poison., suffoc., catarrh, &c.; dislodge foreign bodies fr. esophagus. Use fresh solut. only, or alarming symptoms may occur; contraindicated in weak or fatty heart.—*Doses*: *Expector.*  $\frac{1}{60}$ – $\frac{1}{20}$  grain (0.001–0.003 Gm.) in syrup; *emetic*  $\frac{1}{20}$ – $\frac{1}{3}$  grain (0.003–0.008 Gm.); *hypnotic*,  $\frac{1}{30}$  grain (0.002 Gm.) subcut.—*Inf.*, emet.  $\frac{1}{15}$ – $\frac{1}{10}$  grain (0.004–0.006 Gm.).—*Max D.*  $\frac{1}{3}$  grain (0.02 Gm.) single; 1 grain (0.06 Gm.) daily.—*Appl.*, in skin dis. of infants, in 0.2% oint.—*Antid.*, strychnine,  $\frac{1}{10}$ – $\frac{1}{6}$  grain (0.006–0.007 Gm.), hydrated chloral, chlorof., ice, ether injections.—*Incomp.*, alkalies, potass. iodide, ferrie chloride, picric acid, tannic acid, silver nitrate. *Physiol.* antid. to hydrated chloral & chlorof.—*Caut.* Keep dark and well stoppered.

*Note.*—The Merck brand does not deteriorate as readily as the article ordinarily found on the market; where uniformly reliable results are desired, it should hence be used to the exclusion of the more unstable ones.

#### do. Merck.—Amorphous (56)

Gray, amorph. powd.—*Sol.* A., more sol. in W. than cryst. form.—*Uses*: As preceding.—*Acc.* to Guinard cryst. apomorphine differs fr. the amorph. physiologically in that with the former the stimulating action predominates, whereas the amorph. exhibits purely narcotic properties. In pica in cattle equal parts of the cryst. & amorph. apomorph. are injected subcut., in doses of  $\frac{1}{2}$ –3 grains (0.1–0.2 Gm.) of each, for 3 consecutive days.—*Caut.* Keep in well-stopp. amber bot.

**Apomorphine Methylbromide.**—see **Euporphin**

**Aporetin Merck** (160)  
Resinous subst. fr. *Rheum officinale*, & but little investigated.—Grayish-brown powd.—*Sol.*, alkalies w. dark-brown color; insol. E.

**Apple Oil.**—see **Amyl Valerate**

**Apynone.**—see **Pyoktanin Yellow**

**Aqua Ammonia.**—see **Water Ammonia**

**Aqua Fortis.**—see **Acid Nitric**

**Aqua Regia.**—see **Acid Nitrohydrochloric**

#### Aquilegia

(Columbine).—Seeds of *Aquilegia vulgaris*, L. Ranunculaceae.—*Habit.*: Europe; advent. in U. S.; Northern Asia.—*Etymol.*: Lat. “aquila,” eagle, i.e., the nectaries are bent into the form of an eagle’s beak.—*Constit.*: Fatty & acrid resins.—*Uses*: Antiscorbutic; Diuret.; Diaphor.

**Arabin.**—see **Acid Arabic**

**Arabinose Merck.**—Cryst. (320)  
(Pectinose; Pectin Sugar).—A pentose fr. beet gum, by sulphuric acid.— $C_5H_{10}O_5$ .—Wh. cryst.—*Sol.* W.—*Melt.* 160° C.

#### Araça

(Araça Iba; Araça Mirim).—Fruit, leaves & root of *Psidium Araça Raddi* (*Psidium piri-ferum* Vell.). Myrtaceae.—*Habit.*: Brazil; Uruguay.—*Etymol.*: Fr. Grk. “psidium,” pomegranate peel, fr. the resemblance one bears to the other. “Araça” is the Brazilian name of the plant.—*Constit.*: Volat. oil; fixed oil; aracin; tannin.—*Uses*: Astring. in diarrhea; root also in menorrhag.—*Dose*: Root, 30 grains (2 Gm.) in infusion.

#### Aralia Hispida

(Dwarf Elder; Wild Elder; Bristle-stem Sarsaparilla; Pigeon Berry).—Root of *Aralia hispida*, Ventenat. Araliaceae.—*Habit.*: U. S. fr. New England to Virginia.—*Etymol.*: “Aralia” is the Canadian name of the plant. “Hispida” refers to the sharp, stiff bristles with which the low stem is beset.—*Diuret.*—*Uses*: Dropsy.—*Dose*: Fld. extr., 30–60 m (2–4 Ce.).

#### Aralia Racemosa

(Spikenard; American Spikenard; Spignet; Petty-morrel; Spiceberry).—Root of *Aralia racemosa*, L. Araliaceae.—*Habit.*: Northeastern U. S.—*Etymol.*: “Aralia” is the Canadian name of the plant.—Root is 4–8 in. long & several inches thick; light-brown extern., whitish within; marked by scars or cavities an inch or more wide; pleas. spicy and balsamic taste; odor agre. arom.—*Constit.*: Starch; pectin; sugar; resin; volat. oil (trace).—*Alter.*; Diaphor.; Stim.—*Uses*: Pulmonary affections, syphilis, skin diseases & rheumat.—*Extern.*, decoction used as wash in indolent ulcers.—*Dose*: Fld. extr., 30–60 m (2–4 Ce.).

**Arara.**—see **Joannesia**

#### Arariba Alba

(Arariba Branca. Must not be confounded w. Araroba, which is also known as “Arariba”).—Bark of *Sickingia viridiflora*, R. Schum.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



Rubiaceae.—*Habit.*: Brazil.—*Etymol.*: "Arariba branca" is the Brazilian or Portuguese name of the drug.—*Constit.*: Tannin.—Febrifuge.

### Arariba Rubra

(Arariba vermelha; Arariba rosen. Must not be confounded with Araroba, which is also known as "Arariba").—Bark of *Sekingia rubra*, R. Schum. Rubiaceae.—*Habit.*: Brazil, Japan.—*Etymol.*: "Arariba vermelha" is the Brazilian or Portuguese name of the drug.—*Constit.*: Aribine (alkaloid),  $C_{25}H_{26}N_4$  & tannin.—Febrifuge.

### Araroba

(Gon Powder; Pao de Bahia; Crude Chrysarobin; Brazil Powder; Kingworm Powder; "Arariba" so-called [see above]).—Found in cavities in the trunk of Andira Araroba, Aguiar, (Vouacapoua Araroba Lyons). Papilionaceae.—*Habit.*: Brazil; Bahia; in damp forests.—*Etymol.*: Lat. "Araroba" fr. E. Indian name, "ar(ar)-oba," as applied to the bark; & "Andira," Lat. reprod. of its Brazilian name. "Vouacapoua," fr. Cent. American (Caribbean) "voicapoua."—Light-yellow powd. wh. fresh, but brownish on exposure; slightly cryst.; rough; inod.; bitter.—*Constit.*: Chrysarobin (crude chrysophanic acid); gum; resin; bitter extractive; and woody fiber.—*Uses*: Chiefly as source of chrysophanic acid; also ext. in skin diseases, like chrysophanic acid.

*Arbor Vita.*—see *Thuja*

### Arbutin Merck.—White, cryst. (23

Glucoside fr. lvs. *Arctostaphylos Uva-ursi*, Spr. (Bearberry).— $C_{12}H_{16}O_7$ .—Wh. cryst.; bitter.—*Sol.* A., boil. W.; sl. in cold W.—*Prep.*:—*Uses*: In Bright's dis., inst. of uva-ursi.—*Dose*  $2\frac{1}{2}$ –5 grains (0.15–0.3 Gm.) 3 or 4 t. p. d.—*Max. D.* 15 grains (1 Gm.) single; 60 grains (4 Gm.) p. day.

*Arcanum Dupicalum.*—see *Potassium Sulphate*

*Archangelica.*—see *Angelica*

*Archil.*—see *Orchil*

### Arctostaphylos Glauca

(Great-berried Manzanita).—Lvs. of *Arctostaphylos glauca*, Lindley. Ericaceae.—*Habit.*: U. S. (California).—*Etymol.*: Grk. "arktos," bear, & "staphylos," bunch of grapes, i.e., the fruit is rough, & occurs in clusters like grapes. "Glauca" fr. Grk. "glaukos," sea-green, & refers to the light-green color of the lvs.—*Constit.*: Arbutin; tannin.—Astring.; Tonic.—*Uses*: Gleet, vesical catarrh, incont. of urine, &c.—*Dose*: Fld. extr., 20–60  $\text{m}$  (1.3–4 Cc.).

### Areca

(Betel; Pinang).—Fruit of *Areca Catechu*, L. Palmæ.—*Habit.*: East Indies.—*Etymol.*: Fr. "arec," the Malabar name of the plant.—Seeds are hard & heavy; round-conical; depressed at base; extern. brown, mottled

with fawn color, intern. brownish-red with whitish veins; fresh seed has a faint cheese-like odor, astring. sub-acrid taste.—*Constit.*: Arecoline,  $C_8H_{11}NO_2$ ; arecaine,  $C_7H_{11}NO_2 + H_2O$ ; arecadinine,  $C_8H_{11}NO_2 + H_2O$  (isomer of arecaine); guvacine,  $C_8H_9NO_2$ —Masticatory; Astring.; Tonic.—*Dose* 2–3 dr. (8–12 Gm.) as tenia-cide. Fld. extr., 45–120  $\text{m}$  (3–8 Cc.).

*Arcacidinylester.*—see *Homoarecoline*

### Arecoline Hydrobromide Merck.—Cryst. (1425

Salt of alkaloid, fr. fruit of *Areca Catechu*, L. (Betel nut).— $C_8H_{13}NO_3.HBr$ .—Wh. cryst.—*Sol.* W., A.—*Melt.*, abt.  $167^\circ$  C.—Cath. & Anthelm. (veter.).—Also Myotic (human). Acts on the heart like muscarine.—*Doses*: Anthelm.,  $\frac{1}{15}$ – $\frac{1}{10}$  grain (0.004–0.006 Gm.); as cathart. in colic of horses, like physostigmine,  $\frac{1}{3}$  grains (0.08 Gm.) subcut.—*Max. D.*  $1\frac{1}{2}$  grains (0.1 Gm.).—*Appl.*, myotic, few drops of 1% aqu. solut.

### Arcoline Hydrochloride Merck.—Cryst. (2000

$C_8H_{13}NO_3.HCl$ .—Wh. cryst.—*Sol.* W., A.—*Melt.*  $157$ – $158^\circ$  C.—*Uses & Doses*: As of the hydrobromide.

### Arecoline-Eserine Merck (1600

Mixt. of equal parts arecoline hydrobromide & physostigmine sulphate.—Exhibits the combined therapeutic properties of its components.—*Uses*: Myotic; cathart. (subcut. in colic of horses).—*Dose*  $\frac{3}{4}$ – $1\frac{1}{2}$  grains (0.05–0.1 Gm.) subcut. for horses.

### Arenaria

(Spergularia; Sand Spurrey; Red Sandwort).—Herb of *Arenaria* (Spergularia) rubra, L. Caryophyllaceae.—*Habit.*: Algiers; Southern Europe.—*Etymol.*: Fr. Lat. "arena," sand, referring to location where it grows.—*Constit.*: Chlorides & carbonates; stearopten; aromatic resin.—*Uses*: In acute & chronic vesical catarrh & renal calculi; & in gravel.—*Doses*: 15 grains (1 Gm.).—Aqu. extr., 30 grains (2 Gm.) every 3 hrs. w. sweetened water.—Fld. extr., 150  $\text{m}$  (10 Cc.).

### Argenol (20

A silver albuminoid.—Brown crystals.—*Sol.*, eas. W., G.—10% Ag organically combined.—Antisep.; Baetericide; Alterative.—*Uses*: Urethritis, ulcers, & affect. of eye, nose, & throat.

### Argentamine (15

8% solut. silver phosphate in 15% aqu. solut. ethylenediamine.—Colorl., alkaline liq., turn. yellow on expos.; coagulates albumin but slightly.—*Misc. W.*—Antisep.; Astring.—*Uses*: Extern., inst. of silver nitrate, or corros. sublimate.—*Appl.*, like silver nitrate, or corros. sublimate (in gonorr., in 1:10,000–4,000 solut.).

### Argental

(Silver Quinaseptolate).— $C_9H_5N.OH.SO_3Ag$ .—Comp. of silver & oxyquinoline.—Yellow powd.—*Sol.*, diffie. W.—Antisep.—*Uses*: Skin dis., syph., gonorr., &c.—*Appl.*: *Inj.*, 1:1000–300 solut., or 1:100–50 oint.—*Dose* 15 grains (1 Gm.) p. d.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Argentose**

(35)

Soluble compound of silver & a nucleo-proteid. —30% Ag.—Astring.; Germ.—*Uses*: Like silver nitrate in gonorr., vaginitis, catarrhal conjunctivitis, otitis, rhinitis, &c.; also prophylact. in ophthalmoblenorrhoea.

*Argentum Credé*.—see **Collargol**

*Argilla*.—see **Kaolin**

**Argonin**

(13)

Soluble silver-casein salt, fr. sodium-casein w. silver nitrate & alc.—Fine, wh. powd.—15 Gm. argonin contain as much Ag as 1 Gm. silver nitrate.—*Sol.*, hot W.;  $\text{NH}_3$  increases solubility. —Non-irritant Antisept., like argentamine; does not coagulate albumin of the tissues.—*Appl.* 1-2% solut. (gonorr.); also in blennor. neonatorum in 3% solut.—*Caut.* Keep dark.

**Argyrol**

(30)

(Silver Vitellin).—Antisept.—*Uses*: As of silver nitrate in dis. of eye, throat, nose, ear, & genito-urinary organs.—*Appl.*, as irrigation in endometritis, gonorr., &c., in 1-4:1000 solut.; as inj. in gonorr., in 3-5% solut.

**Arhovin**

(18)

$\text{C}_{10}\text{H}_{13}\cdot\text{C}_6\text{H}_4(\text{COO}\cdot\text{C}_2\text{H}_5)(\text{C}_6\text{H}_5)_2\text{NH}$ . — Addition prod. of diphenylamine & thymylbenzoic-acid ester.—Oily liq.; aromat. odor; cooling, yet burning taste.—*Sol.* A., E., C., oils; insol. W. —Antigonorrhoeic.—*Uses*: Gonorr., cystitis, uric-acid diathesis, gonorr. rheum., &c.—*Dose* 4 m (0.25 Cc.) in gelat. caps. 3-6 t. p. d.—*Appl.* 1-2% solut. in oil on tampons in vagina; in suppos. (each  $\frac{3}{4}$  grain [0.05 Gm.] w. 15-30 grains [1-2 Gm.] oil theobroma).

**Aristochin**

(45)

(Diquinine Carbonic Ether; Aristoquin).— $\text{CO}(\text{C}_{20}\text{H}_{23}\text{N}_2\text{O}_2)_2$ .—Wh., tastel. powd.—96.1% quinine.—*Sol.*, diffic. cold A.; more read. hot A.; alm. insol. E.; insol. W.—Antimalarial, like quinine.—*Doses*: Children under 1 yr.,  $\frac{3}{4}$ —1 $\frac{1}{2}$  grains (0.05-0.1 Gm.); older children, up to 5 grains (0.3 Gm.) 3 t. p. d.; adults, 8-15 grains (0.5-1 Gm.) several t. p. d.

**Aristol**

(36)

(Thymol Iodide; Diiododithymol; Annidalin; Dithymoldiiodide; Thymotol; Iodistol; Iodohydromol; Iodosol; Iodothymol; Isosol; Iothy-mol; Thymiodide; Thymiodol; Thymodin).—Fr. thymol, by alkali. w. iodine in solut. KI.— $\text{C}_{20}\text{H}_{23}(\text{O}_2)_2$ , or,  $(\text{C}_6\text{H}_4\cdot\text{CH}_3\cdot\text{O}\cdot\text{C}_6\text{H}_4)_2$ . — Red-brown powd.—45% of iodine.—*Sol.* E., C., oils; sl. A.; insol. W. or G.—Succedaneum for iodoform.—Germic. & Antisept.—*Uses*: *Extern.*, rhus poisoning, psori., syph. ulc., syph. neopl.; carcinoma; burns; cicatr. wounds, as dust. powd., solut. or oint. in supposit. in chr. dysent.—*Appl.* 10% solut. w. oils, oint., collodion, or ether. In prep'g solut. avoid heat.—*Incomp.*, acids, alcohol, ammonia, corros. sublimate, metal.

oxides, starch, alkalies, & alkali carbonates.—*Caut.* Sensitive to light, hence keep in amber bot., away fr. light.

**Aristolochia Clematis**

Herb of Aristolochia Clematitis, L. Aristolochiaceae.—*Habit.*: Europe.—*Etymol.*: "Aristolochia," see following. "Clematis" fr. Grk. "klema," vine.—*Constit.*: Bitter prin.; resin.—*Uses*: Tonic in wounds fr. bites.—*Extern.*, as vulnerary.

**Aristolochia Cymbifera**

(Raiz Milhomens; Guaeo; Raiz de Farinha).—Root of Aristolochia cymbifera, Mart. & Zucc. Aristolochiaceae.—*Habit.*: Brazil; Paraguay.—*Etymol.*: Grk. "aristos," very good, or best, & "locheia," childbirth, i.e., the plant was believed to favor parturition.—Root is cylindrical, 1 to 1 $\frac{1}{2}$  in. in diam., yellowish color; strong odor.—*Constit.*: Blackish resins; aristolochine (alkaloid?); cassuvin.—*Stim.*; Emmen.—*Uses*: Snake bite & typhoid fever.

**Aristolochia Rotunda**

(Round Birthwort; Somerwort).—Root of Aristolochia rotunda, L. Aristolochiaceae.—*Habit.*: Southern Europe.—*Etymol.*: "Aristolochia," see preceding.—*Constit.*: Aristolochine,  $\text{C}_{33}\text{H}_{22}\text{N}_2\text{O}_{13}$  (Pohl), or,  $\text{C}_{17}\text{H}_{11}\text{NO}_7$  (Hesse).—*Uses*: *Stim.*, in affect. due to atony of the sympathetic nerve; also in debility, snake bite, & malignant sores.

*Aristolochia Serpentaria*.—see **Serpentaria**

*Aristoquin*.—see **Aristochin**

**Armoracia**

(Horseradish).—Fresh root of Cochlearia Armoracia, L. Cruciferae.—*Habit.*: Europe; cultivated & naturalized in U. S.—*Etymol.*: Fr. Grk. "kocheleoron," spoon, referring to the shape of the leaves. "Armorachia" is the Grk. name for horseradish.—*Constit.*: Volat. oil; bitter resin; sugar; gum; myrosine; potassium myronate.—*Rubef.*; Alter.; Tonic; Diuret.—*Uses*: Rheumat., hoarseness, dropsy, debil., &c.—*Dose*, fld. extr., 10-30 m (0.6-2 Cc.).

*Arnaudon's Green*.—see **Chromium Phosphate**

**Arnica Flowers.**—U. S. P.

(Leopard's Bane; Wolf's Bane; Mountain Tobacco).—Dried flower & heads of Arnica montana, L. Composite.—*Habit.*: Northern Europe; Asia; North America.—*Etymol.*: Various, fr. Grk. "ptarnikos," sternutatory, fr. its power of causing sneezing; or, "arnakis," a sheep's skin, i.e., resemblance of hairy stem & leaves; or, most probably, fr. "arrhen," strong, vigorous.—*Constit.*: Volat. oil; arnicin,  $\text{C}_{20}\text{H}_{30}\text{O}_4$  (Walz); arnicine,  $\text{C}_{12}\text{H}_{22}\text{O}_2$ ; fat; resin.—Leaves contain volat. oil and arnicin.—*Febrif.*; *Vulner.*; Tonic; *Stim.*; *Diur.*; Neryine; *Rubef.*; Emmenag.; Sternutatory.—*Uses*: Paralysis, hemorrhages, chronic rheumat., mening., chron. catarrh of

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



aged, dysentery, malaria, amenorrh., diarrh., dropsy, nephritis, &c.—*Extern.*, in bruises & o. injuries. *Doses*: 5–20 grains (0.3–1.3 Gm.), usually in tinct.; chiefly used *extern.* as lotion.—*Alcoh. extr.*, 3–10 grains (0.2–0.6 Gm.).—*Aqu. extr.*, 3–10 grains (0.2–0.6 Gm.).—*Fl. extr.*, 5–20  $\text{ml}$  (0.3–1.3 Ce.).—*Tinct.*, 10–30  $\text{ml}$  (0.6–2 Ce.).

## Arnica Root

(Leopard's Bane; Wolf's Bane; Mountain Tobacco).—Rhizome & roots of *Arnica montana*, L. Compositae.—*Habit.*: Northern Europe; Asia; North America.—*Etymol.*: See Arnica Flowers.—*Constit.*: Arnicine,  $\text{C}_{12}\text{H}_{22}\text{O}_2$ ; arnicin,  $\text{C}_{20}\text{H}_{30}\text{O}_4$  (Walz); volat. oil; resin.—*Tonic*; *Alter*; *Antisep.*; *Antipyr.*—*Uses*: *Intern.*, in diar. & as febrif.—*Extern.*, as vulnerary.—*Doses*: 5–20 grains (0.3–1.3 Gm.) as decoct.—*Alcoh. extr.*,  $1\frac{1}{2}$ –5 grains (0.1–0.3 Gm.).—*Fld. extr.*, 5–15  $\text{ml}$  (0.3–1 Ce.).—*Tinct.*, 5–30  $\text{ml}$  (0.3–2 Ce.).

## Arnica Merck

(1200

Bitter substance fr. root *Arnica montana*, L.— $\text{C}_{20}\text{H}_{30}\text{O}_4$  (Walz).—Brown, viscid mass; odorl.; bitter.—*Sol.* A., E., amm. & alkal.—*Antisep.*

## Arnold's Reagent.—For acetoacetic acid

(a) solut. 1 Gm. paramidoacetophenone & 2 Gm. conc. HCl in 100 Ce. W.; (b) solut. 1 Gm. sodium nitrite in 100 Ce. W.—In use, 2 vol. of solut. a are mixed w. 1 vol. solut. b.—On adding amm. to a mixt. equal vol's liq. (e.g. urine), & reagent, a brownish-red color or ppt. forms if acetoacetic acid present; on then add. excess conc. HCl, color changes to purplish-violet.

*Arnolla.*—see *Annatto*

*Arrhenal*=Sodium Methylarsenate.—see **Sodium Methylarsenate**

*Arrowroot.*—see **Starch, Arrowroot**

## Arsen-Ferratose

(2

Syrup Ferratin, Arsenated).—Liq. prep. of ferratin & arsenic; 0.3% Fe; 0.003% As.—*Uses*: As of ferratin.

*Arsenic-hemol.*—see **Hemol, Arsen-**

## Arsenic Merck.—Cryst. or powder

(1

(Arsenicum; Arsenium).—Native metal.—*As.*—*Etymol.*: Fr. Grk. "arsenikon," which name, however, is used at the present time to designate yellow arsenic sulphide, auripigment (Dioscorides).—Steel-gray, brittle, lustr., metal-like, cryst. mass, or heavy, black powd.; odorl.; tastel.—*Volat.* above  $100^\circ\text{C}$ .—*Uses*: Techn. in alloys, in manuf. realgar, extraction of nickel; manuf. yellow arsenic sulphide, fly poison, &c.—*Antid.*, same as for arsenic trioxide.

*Arsenic-acid Anilide.*—see **Atoxy**

## Arsenic Alginate

(Alginoid Arsenic).—Fr. sod. alginate & arsenic chloride.—Wh. powd.—*Sol.*, ammonia (solut. misc. w. W.).—*Arsenical.*—Decomp. in intest.

## Arsenic Bromide Merck

(4

(Arsenous, or Arsenious, Bromide; Arsenic Tribromide).— $\text{AsBr}_3$ .—Yellowish-wh. cryst.—*Sol.* W.—*Melt.*  $20-25^\circ\text{C}$ .—*Boil.*  $220^\circ\text{C}$ .—*Volat.* unchanged.—*Alter*—*Uses*: Diab.—*Dose*  $\frac{1}{60}$ – $\frac{1}{15}$  grain (0.001–0.004 Gm.).—*Max.*  $\frac{1}{60}$  grain (0.01 Gm.), single.—*Antid.*, same as for arsenic trioxide.—*Caut.* Keep well stoppered. Poisonous!

## Arsenic Chloride Merck

(8

(Arsenous, or Arsenious, Chloride; Butter of Arsenic; Caustic Arsenic Chloride; Arsenic Trichloride).— $\text{AsCl}_3$ .—Yellowish, oily liq.—*Sp. Gr.* 2.205 at  $0^\circ\text{C}$ .—*Sol.* W., A., E., oils.—*Boil.*  $130^\circ\text{C}$ .—*Alter*.—*Uses*: Skin diseases.—*Dose*  $\frac{1}{60}$ – $\frac{1}{15}$  grain (0.001–0.004 Gm.).—*Antid.*, same as for arsenic trioxide.—*Caut.* Poisonous!

*Arsenic Disulphide.* } —see **Arsenic Sulphide,**  
*Arsenic Glass, Red.* } **Red**

## Arsenic Iodide Merck.—Cryst.

(7

(Arsenous, or Arsenious, Iodide; Arsenic Triiodide).— $\text{AsI}_3$ .—Orange-red, lustrous cryst. masses; or orange-red, shin., cryst. scales; iodine odor & taste.—*Sol.* E., carbon disulph.; abt. 10 W.; 30 A.; grad. decomp. by W.—*Melt.*  $146^\circ\text{C}$ .—*Boil.*  $394-414^\circ\text{C}$ .—*Alter.*; *Antisep.*—*Uses*: *Intern.*, cancer, scrofula, lepra & skin dis.—*Extern.*, psoria, lupus, lepra, &c.—*Doses*:  $\frac{1}{60}$ – $\frac{1}{15}$  grain (0.001–0.004 Gm.) several t. p. d., in pills; in scrofula, 1–10 drops of a 1% solut. 1–2 t. p. d., very gradually increased; also given in form of Donovan's Solut. (Arsen. iod. 10, mercuric iod. 10, & water to make 1000).—*Max. D.*  $\frac{1}{6}$  grain (0.01 Gm.) single;  $\frac{1}{2}$  grain (0.03 Gm.) daily.—*Antid.*, same as for arsenic trioxide.—*Incomp.*, water.—*Caut.* Handle w. care; keep fr. air & light. Poisonous!

do. Merck.—U. S. P.

(8

## Arsenic Phosphide Merck

(25

$\text{AsP}$ .—Reddish-brown, dark, combust. fragments.—*Sol.*, carbon disulph.—Decomp. by heat.

*Arsenic, Ruby.*—see **Arsenic Sulphide, Red**

## Arsenic Sulphide Red Merck.—Lumps or powder

(1

(Arsenic Disulphide; Realgar; Red Orpiment; Ruby Arsenic; Red Arsenic Glass).—Native.— $\text{As}_2\text{S}_2$ .—Brownish-red powd., or amorph. masses.—*Sol.*, alkalies, their sulphides & carbonates.—Ignites at h. temp.; burns w. blue flame.—*Uses*: Techn., as pigment in painting; in fireworks for giving an intense white flame; manuf. of shot; in calico-printing and dyeing; in tanning.

## Arsenic Sulphide Yellow Merck.—Lumps or powder

(1

(Arsenic Trisulphide; Arsenous Sulphide; Orpiment; King's Yellow).— $\text{As}_2\text{S}_3$ .—Yellow or orange powd., or lumps w. conch. fracture.—*Sol.*, alkalies, their sulphides & carbonates.—

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Uses:* Pigment; reduc. agent; depil.; in veter. medicine for remov. warts fr. horses.—*Techn.*, in painting.

**Arsenic Sulphide Yellow Merck.**—Precip. (3)  
(Precipitated Orpiment; Precip. Arsenic Trisulphide, &c.).—Very fine yellow powd.—*Sol.*, alkali, their carbonates, & sulphides.—*Uses:* Depil. & caustic; also techn.

*Arsenic Tribromide.*—see **Arsenic Bromide**

*Arsenic Trichloride.*—see **Arsenic Chloride**

*Arsenic Triiodide.*—see **Arsenic Iodide**

**Arsenic Trioxide Merck.**—Highest Purity, powder (1)

(Arsenious Acid; White Arsenic; Arsenous Oxide or Anhydride).—Fr. comm'l wh. arsenic.— $\text{As}_2\text{O}_3$ .—Wh., amorphous powder; odorl.; tastel.—*Sol.*, hydrochloric acid; v. sl. A.; slowly in cold W.; freely in solut. alkalies & alkali carbonates; abt. 5 G.—*Subl.*  $137^\circ\text{C}$ .—Antiper.; Antisep.; Alter.—*Uses:* Intern., malar. fev., skin dis., chorea, neural., gastralgia, uterine disord., diab., bronch.—*Extern.*, remov. warts, cancers, &c.—*Dose*  $\frac{1}{60}$ – $\frac{1}{30}$  grain (0.001–0.002 Gm.) 3 or 4 t. p. d.—*Appl.*, on neoplasms large amounts should be used, to get quick results; otherwise it is dangerous. Must be kept from healthy tissues when topically applied, or dangerous absorption will occur.—*Maz. D.*, abt.  $\frac{1}{12}$  grain (0.005 Gm.) single; abt.  $\frac{1}{6}$  grain (0.01 Gm.) p. day.—*Antid.*, emetics; stomach pump or siphon if seen immediately; hot milk & water w. zinc sulphate or mustard. After vomiting, give milk or eggs, & magnesia in milk. If saccharated oxide of iron or dialyzed iron is handy, use. If tincture of iron & ammonia water are within reach, precip. former with latter, collect precip. on a strainer, & give it moist. Always give antidotes, be the case never so hopeless.—*Incomp.*, tannic acid, infusion cinchona, salts of iron, magnesium, &c.—*Caut.* Keep with every care against mistake or accident. Highly poisonous!

**do. Merck.**—Highest Purity, lumps (1)  
 $\text{As}_2\text{O}_3$ .—Heavy, amorph. masses; at first transl. & glass-like, but slowly becom. wh. & opaque.—*Sp. Gr.*, abt. 3.7.—*Sol.*, hydrochl. acid.—*Uses* & *Doses:* As of preceding.

**do.**—Commercial, lumps or powder (1)  
By-product in working cobalt, nickel, silver, zinc, & tin, ores.— $\text{As}_2\text{O}_3$ .—Heavy, amorph. transl., or wh. opaque masses; or wh. powder.—*Uses:* Techn., both lumps & powd. are used in paints, in manuf. of glass, in leather industries, as preserv. of hides, as antisept., for killing rodents, manuf. of shot & bullets, & in manuf. of arsenic acid.—*Caut.* Highly poisonous!

**do.**—Solution.—U. S. P.

Aqu. solut. cont. 1%  $\text{As}_2\text{O}_3$ .—Alter.; Antiper.—*Uses:* Lepa & o. skin dis. & in intern. or remit. fevers.—*Dose* 2–8  $\text{m}$  (0.12–0.5 Cc.) in solut.

**Arsenic Trioxide Merck.**—Reagent (1)

(Arsenous Acid, or Anhydride).— $\text{As}_2\text{O}_3$ .—Wh., vitr., or porcelain-like pieces or wh. powd.—*Sol.* 15 boil. W.—*Tests:* (Res.) heat 1 Gm. in porcel. dish—none whble.—( $\text{BaSO}_4$ ; *Talc*;  $\text{CaSO}_4$ , &c.) 0.5 Gm. perf. solub. in 5 Cc.  $\text{H}_2\text{O}$  + 5 Cc.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96); solut. clear.—(*Sulphide*) dissolve 5 Gm. in 15 Cc.  $\text{H}_2\text{O}$  + 5 Cc. NaOH solut.; add 2 drops solut. lead acetate—no color react.—*Uses:* Prepar. volumetric soluts.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Arsenic Trisulphide.**—see **Arsenic Sulphide, Yellow**

*Arsenic, White.* } —see **Arsenic Trioxide**  
*Arsen(i)ous Anhydride.* } **ide**

*Arsen(i)ous Bromide.*—see **Arsenic Bromide**

*Arsen(i)ous Chloride.*—see **Arsenic Chloride**

*Arsen(i)ous Iodide.*—see **Arsenic Iodide**

*Arsen(i)ous Oxide.*—see **Arsenic Trioxide**

*Arsen(i)ous Sulphide.*—see **Arsenic Sulphide, Yellow**

*Artemisia.*—see **Absinthium; Santonica**

**Artemisia Abrotanum**

(Southernwood).—Lvs. of *Artemisia abrotanum*. L. Composite.—*Habit.*: Southern Europe; Western Asia; cultiv. in U. S.—*Etymol.*: "Artemisia," fr. Grk. "Artemis," the goddess—the Roman Diana to whom *Artemisia Absinthium* was dedicated. "Abrotanum," fr. Grk. "abrotos," god-like, undying, because of the curative properties of the plant.—*Constit.*: Volat. oil; abrotine,  $\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}$ .—*Uses:* Tonic; Deobstruent; Anthelm.; also in arom. baths & poultices.—*Dose:* Fld. extr., 30–60  $\text{m}$  (2–4 Cc.).

**Artemisia Frigida**

(Sierra Salvia; Sage Bush; Mountain Sage; Wormwood Sage).—Herb of *Artemisia frigida*, Willd. Composite.—*Habit.*: U. S. (Minnesota to Idaho, south to Texas; Colorado).—*Etymol.*: See preceding.—*Constit.*: Bitter prin. (glucoside?).—Diuret.; Nerve Stim.—*Uses:* Periodic fevers, rheumat., scarlet fever, diphth., &c.—*Dose:* Fld. extr., 1–2 fl. dr. (4–8 Cc.).

**Artemisia Mutellina**

(Silky Wormwood).—*Artemisia mutellina*, Vill. Composite.—*Habit.*: Swiss Alps; Central Europe.—*Etymol.*: See *Artemisia Abrotanum*.—*Constit.*: Volat. oil; bitter prin.—Bitter Stomachic; Stim.; Tonic.—*Uses:* Prepar. absinthe.

**Artemisia Pontica**

(Roman Wormwood).—*Artemisia pontica*, L. Composite.—*Habit.*: Southern Europe to Central Asia.—*Etymol.*: See *Artemisia Abrotanum*.—*Constit.*: Volat. oil; bitter prin.—*Uses:* Bitter stomachic like absinthium.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

## Artemisia Vulgaris

(Mugwort; Mugweel).—Herb & root of *Artemisia vulgaris*, L. Compositæ.—*Habit.*: Europe; Northern Africa; Asia; natur. in U. S.—*Etymol.*: See *Artemisia Abrotanum*.—*Constit.*: *Herb*: Volat. oil; tannin.—*Root*: Volat. oil; tannin; resin.—*Herb*: Aromat.; Emmen.; Antispasmodic.—*Root*: Tonic, particularly in epilepsy; Emmen.—*Uses*: Eclampsia, gastric debility, febrile conditions, & tapeworm.—*Doses*: Alcoh. extr., 2–10 grains (0.12–0.6 Gm.).—*Fld. extr.*, 30–60 ℥ (2–4 Cc.).

## Artemisin Merck

(200

(Oxyantonin?).—Fr. seeds of *Artemisia maritima* (Wormseed), in which it is found with santonin, & which may be regarded as oxyantonin.— $C_{15}H_{14}O_4$ .—Wh. cryst.—*Sol.*: C.; hot A., & hot W.—*Melt.* 200° C.—Excellent stimulant of appetite in conjunction w. quassin & iron oxalate.

## Arum

(Spotted Arum; Adder's Root).—Root of *Arum maculatum*, L. Araceæ.—*Habit.*: Middle & Southern Europe.—*Etymol.*: Grk. "aros," to be useful, referring to its application.—*Constit.*: Saponin; starch.—Stoma. & Tonic in chlorosis.

## Asafetida.—U. S. P.

(Devil's Dung; Food of the Gods; Asafætida).—Gum-resin fr. root of *Ferula fetida* (Bunge) Regel; *F. Scorodosma*, B. & H.; & *F. Narthex*, Boissier. Umbelliferae (Peucedaneæ).—*Habit.*: Persia; Turkestan; Afghanistan.—*Etymol.*: Persian "aza," mastic or gum, & Lat. "fetida," stinking.—Irreg. masses of whitish tears imbedded in a yellowish-gray or brownish-gray, sticky mass. Partly sol. in E.; sol. (at least 50%) in A.; yields a milky emulsion when triturated with W.—*Constit.*: Ethereal oil; resin; ester of asaresinotannol & ferulaic acid; gum; vanillin; free ferulic (ferulaic) acid.—*Uses*: Nervine in hysteria, hypochondriasis, asthma, catarrh, flatul. constip., convulsions, spasms, whoop-cough, &c. Used in India, Persia, &c., as condiment and flavoring for foods.—*Doses*: 5–20 grains (0.3–1.3 Gm.) in pill or powd.—*Fld. extr.*, 5–20 ℥ (0.3–1.3 Cc.).—*Tinct.*, 10–40 ℥ (0.6–2.6 Cc.).

## Asagraa Officinalis.—see Sabadilla

## Asana.—see Pterocarpus Pallidus

## Asaprol

(25

(Calcium Betanaphtholalphanonosulphonate; Abrastol).—Fr. betanaphthol, by sulphuric acid.— $CaC_{20}H_{14}S_2O_8 + 3H_2O$ , or,  $Ca(OH.C_{10}H_6.SO_3)_2 + 3H_2O$ .—Reddish-wh. powd.; odorl.; sl. bitter, then sweet, taste.—*Sol.* 1.5 W.; 3 A.—Decomp. near 50° C.—Analg.; Antisept.; Antirheum.; Antipyret.—*Uses*: Tubercul. rheumat., pharyngitis, gout, typh. fever, diphtheria, whoop-cough, sciatica, &c. Also used as a chem. reagent for albumin in presence of albumoses

& peptone.—*Dose* 8–15 grains (0.5–1 Gm.), several t. p. d.—*Max. D.* 15 grains (1 Gm.), single; 60 grains (4 Gm.) p. day.—*Appl.* 2–5% solut.—*Incnp.*, antipyrine & quinine.—See also Abrastol.

## Asarabacca.—see Asarum Europæum

*Asarabacca Camphor.* } —see *Asaron*  
*Asarin.* }

## Asaron Merck.—Cryst.

(280

(Asarin; Asarum Camphor; Asarabacca Camphor).—Fr. root *Asarum europæum*, L. (Asarabacca).— $C_{12}H_{16}O_3$ , or,  $(CH_3O)_3.C_6H_2.(CH_2)_2.CH_3$ .—Wh. to yellowish cryst.; faint, biting taste.—*Sol.*: A., E., glacial acetic acid; sl. in hot W.—*Melt.* 59° C.—*Boil.* 296° C.—Tonic; Antisept.

## Asarum Camphor.—see Asaron

## Asarum Canadense

(Wild Ginger; Canada Snakeroot; Indian Ginger).—Rhizome & rootlets of *Asarum canadense*, L. Aristolochiaceæ.—*Habit.*: Canada to N. Carolina & Kansas.—*Etymol.*: Grk. "a," not, & "sarkein," to decorate, i.e., the ancients forbade the use of the flowers (of *A. europæum*) for garlands.—*Constit.*: Acid resin, arom. volat. oil, methyl-eugenol, gum, chlorophyll, &c.—Aromat.; Stim.; Diaphoret.—*Uses*: Colic, & to sweeten the breath.—*Dose*: *Fld. extr.*, 15–60 ℥ (1–4 Cc.).

## Asarum Europæum

(Asarabacca; Hazelwort; Wild Nard; European Snakeroot).—Root of *Asarum europæum*, L. Aristolochiaceæ.—*Habit.*: Europe.—*Etymol.*: See preceding.—*Constit.*: Volat. oil; methyl-eugenol; asarum camphor (asaron),  $C_{12}H_{16}O_3$ ; asarite(?); tannin; resin; bitter prin.—*Uses*: Emet.; Sternut.; Cath.; Errhine.—*Doses*: 30–60 grains (2–4 Gm.) as emet. & cath.; 1–2 grains (0.06–0.12 Gm.) as errhine.

## Asbestos

(1

(Amianthus).—Native calcium & magnesium silicate.—Fine, slender, flaxy fibers; resist fire & most solvents.—*Uses*: Chiefly techn. In laborat. to make filters for resist. str. acids; close combustion tubes; acts w. sulphuric acid as drier for gases; in milk analysis; Gooch filters, &c.

## Asbestos-Copper Merck

(10

*Uses*: Determ. sugar accord. to Allihn.

## Asbestos Platinized Merck

(700

20% & 25% platinum.

## Asclepias Curassavica

(Blood Flower; Bastard Ipecac; Blood Weed; Red-head).—Lvs. & tops of *Asclepias curassavica*, L. Asclepiadaceæ.—*Habit.*: West Indies; South America.—*Etymol.*: Fr. "Esculapius," god of medicine, in whose honor the species was named.—*Constit.*: Asclepiadin (glucoside)?—Hemostat.; Astring.; Styptic; Vermif.; also,

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



Alterative & Emetic.—*Uses*: Chronic gonorr., worms, & leucor.—*Dose*: Fld. extr., 60–120 m (4–8 Cc.).

### Asclepias Incarnata

(White Indian Hemp).—Root of *Asclepias incarnata*, L. Asclepiadaceae.—*Habit.*: Canada to Tennessee & Kansas.—*Etymol.*: “*Æsculapius*,” see preceding. Lat. “*incarnata*,” flesh-colored, referring to the color of the corollas.—*Constit.*: Asclepiadin; two acrid resins; fixed & volat. oils; pectin; albumin.—*Expector.*; Diuret.; Alter.—*Uses*: Bronch., pneumon., rheumat., &c., and also as anthelm.—*Doses*: Fld. extr., 30–60 m (2–4 Cc.); 10–20 grains (0.6–1.3 Gm.) powd. root is given as anthelm. 3 t. p. d.

### Asclepias Syriaca

(Milkweed; Silkweed; Wild Cotton).—Root of *Asclepias syriaca*, L. (A. Cornuti, Decaisne). Asclepiadaceae.—*Habit.*: Canada to N. Carolina & Kansas.—*Etymol.*: “*Æsculapius*,” see *Asclepias Curassavica*.—*Constit.*: Asclepiadin (glucoside?); tannin; volat. oil; bitter prin.; starch.—Alterative; Anodyne.—*Uses*: Scrofula, asthma, amenor., dropsy, dyspnea, worms, rheumat., &c.—*Dose*: Fld. extr., 30–60 m (2–4 Cc.).

### Asclepin (Eclectic)

(25)

Resinous extr. fr. root of *Asclepias tuberosa*, L. (Butterfly weed).—Diaphor.; Expector.; Cath.; Tonic.—*Uses*: Pleurisy, pneum., catarrh, consumpt., &c.—*Dose* 1–2 grains (0.06–0.12 Gm.) 3 or 4 t. p. d.

*Asepsin*.—see Bromacetanilide, Bromo-

### Aseptol Merck

(4)

(Sozolic Acid; Orthophenolsulphonic Acid; Orthosulphocarboic Acid).—33 $\frac{1}{3}$ % solut. orthophenolsulphonic acid.— $C_6H_4O_3S$ , or,  $C_6H_4(OH)SO_3H$  [1:2].—Clear, yellow to yellowish-brown liq.; odor carboic acid.—Sp. Gr. 1.155 at 15° C.—*Sol.* A., G., all prop. W.—Antisep.—*Uses*: Disinf., claimed free fr. toxic effects, yet more effic. than carboic acid.—*Extern.*, in dis. of bladder, eye, skin, & in diphth., laryng., gingivitis, &c.—Efficient reagent for albumin; also for detect. biliary pigments in urine.—*Dose*: 10–20 grains (0.6–1.3 Gm.).—*Appl.* 1 to 10% solut.—*Caut.* Keep fr. light.

*Aseptolin*=*Pilocarpine Phenate*.—see *Pilocarpine Phenate*

*Ash, European*.—see *Fraxinus*

### Asparagin Merck

(25)

(Aminosuccinamic Acid; Althein; Asparagine; Asparamide).—Amido-deriv. of succinic acid fr. most young plants, espec. Leguminosae.— $C_4H_8N_2O_3 + H_2O$ , or,  $CONH_2CH_2CH(NH_2)COOH + H_2O$ .—Transp., lustr., rhombic prisms.—Sp. Gr. 1.519.—*Sol.* 47 W. at 20° C., acids, alkalis.—Physiologically inactive.—*Uses*: Formerly in cardiac dis.—*Dose* 5–10 grains (0.3–0.6 Gm.).

*Asparagin-Mercury*.—see *Mercury Asparaginate*

**Asparagin Sulphate Merck.—Amorph.** (60)  
 $C_4H_8N_2O_3.H_2SO_4$ .—Wh. powd. *Sol.* W.

### Asparagus

Root of *Asparagus officinalis*, L. Liliaceae, Con-vallariaceae (Asparagoideae).—*Habit.*: Europe; cultiv. everywhere. *Etymol.*: Fr. “*asparagus*,” the ancient Grk. name, of Persian origin.—*Constit.*: Asparagin ( $C_4H_8N_2O_3.H_2O$ ); fat; sugar.—Aper.; Alter.; Diuret.—*Uses*: Domestic practice & eclectics. Medicinal value problematical.—*Dose*: Fld. extr., 30–60 m (2–4 Cc.).

*Asparamide*.—see *Asparagin*

### Asperula

(Sweet Woodruff; Sweet-grass; Hay-plant).—Lvs. & tops of *Asperula odorata*, L. Rubiaceae.—*Habit.*: Europe; U. S.—*Etymol.*: Fr. Lat. “*asper*,” rough (“*asperulus*” is the diminutive), i.e., the leaves are hairy.—*Constit.*: Cumarin; tannin; volat. oil.—Aromat.; Hepat.; Stim.; Deobstruent.—*Uses*: Pectoral teas & spiced wines.

### Asphaltum

(Asphalt; Mineral Pitch; Judean Pitch; Bitumen).—Fossil, bituminous substance resulting from petroleum by evap. of lighter hydrocarbons, & partial oxid’n of the residue.—*Habit.*: West Indies (chiefly Trinidad); Venezuela; Dead Sea; Switzerland, &c.—*Etymol.*: Grk. “*asphalton*,” bitumen. The name, signifying “earth-resin,” or “earth-pitch,” was already in use at the time of Aristotle, Strabo, & Dioscorides.—The “*Syriac*” asphalt (from the Dead Sea) forms deep-black, shining brittle masses; conch. fracture; faint, pitch-like odor.—*Constit.*: Hydrocarbons, w. some O, S, & N.—*Sol.*, oil turp., petroleum,  $CS_2$ , C., acetone, & E.; insol. acids, alkalis, W., & A.—*Uses*: *Medic.*, Antispasm.; & fumig. in rheumat.—*Techn.*, roof-covering; street pavements; calking ships; insulators; lutes; lacquers & varnishes; cell-making in microscopy; etching in photog.

### Asphodelus

Root of *Asphodelus ramosus*, L. Liliaceae. (Asphodeleae).—*Habit.*: Mediterranean region.—*Etymol.*: Grk. “*a*,” not, & “*sphallein*,” to want, to need; the ancients planted it on graves in order that the dead should not suffer fr. want.—*Constit.*: Starch; mucilage; sugar; bitter extractive; asphodelin?—Emmen.; Diuret.—*Uses*: *Extern.*, in cutaneous eruptions.

**Aspidium.—U. S. P.**

(Male Fern; Male Shield-fern; Filix-Mas).—Dried rhizome of *Dryopteris* (*Aspidium*) *Filix-mas* (L.) Schott (Swartz), & of *Dryopteris* (*Aspidium*) *marginalis* (L.) Asa Gray. Filices. (Polypodiaceae).—*Habit.*: North America; Northern Asia; Europe; Northern Africa.—*Etymol.*: Grk. “*aspidion*,” a little shield, fr. “*aspis*,” shield, referring to the form of the indusium. The designation “*filix-mas*” was ap-

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



plied by Linnaeus to this species, and is probably derived fr. "filix," fern, fr. Lat. "filum," thread, because of the root-threads; or, fr. Grk. "ptylon," wing, because of the form of the flabellum. "Mas" designates "male" or "masculine," & refers to the asexual fructification. "Marginalis" fr. Lat. "marguo, marginus," margin, i.e., the fruit dots are near the edge of the frond. "Dryopteris" fr. Grk. "dryos," the oak, & "pterus," wing, i.e., referring to the favorite place of growth of the fern.—*Const.*: Filix acid,  $C_7H_{16}O_5$ ; volat. oil; filicin, filmaron; filitanic acid; filix red; resin. —*Uses*: Teniafuge. —*Doses*: 30-120 grains (2-8 Gm.). Usually exhibited in form of oleoresin.—*Fld. extr.*, 30-90  $\text{ml}$  (2-6 Cc.).

*Aspidium Athamanticum*.—see **Pannum**

### Aspidium Spinulosum

(Common Wood Fern).—Rhizome of Dryopteris (*Aspidium*) spinulosum, Kze. Polypodiaceae. —*Habit.*: Northern Europe; Asia; North America.—*Etymol.*: See *Aspidium*, above. —*Const.*: Polystichin; polystichalbin; polystichin; polystichocitrin; polystichoflavin.—*Uses*: Teniafuge.

### Aspidosamine Hesse-Merck

(8000

Alkaloid fr. bark *Aspidosperma* Quebracho-blanco, Schlecht. —  $C_{22}H_{28}N_2O_2$ . — Yellowish-brown powd.; darkens in air.—*Sol.* A., E., C., B.—*Melt.*, abt. 100° C.

### Aspidosamine Hydrochloride Hesse-Merck

8000

$C_{22}H_{28}N_2O_2HCl$ .—Brown powd.—*Sol.* W., A.

### Aspidosperma

(Quebracho).—Bark of *Aspidosperma* Quebracho-blanco, Schlecht. Apocynaceae. —*Habit.*: Argentine Republic.—*Etymol.*: Fr. Grk. "aspi," shield, & "sperma," seed; "quebracho," fr. Portug. "quebrachado," axe-breaker, i.e., the wood is exceedingly hard.—Nearly flat pieces abt.  $\frac{2}{5}$ -1 in. (1-3 Cm.) thick; extern. yellowish-gray or brownish; inner surface yellowish- or reddish-brown; inodor.; very bitter, sl. aromat. taste.—*Const.*: *Aspidospermine*,  $C_{22}H_{30}N_2O$ ; *aspidospermatine*,  $C_{22}H_{28}N_2O_2$ ; *aspidosamine*,  $C_{22}H_{26}N_2O_2$ ; *quebrachine*,  $C_{21}H_{26}N_2O_3$ ; *quebrachamine*; *hypoquebrachine*,  $C_{21}H_{26}N_2O_2$ ; *quebrachol*,  $C_{20}H_{31}O \cdot xH_2O$ ; *quebrachit*,  $C_6H_{11}(OCH_2)_5$ ; tannin.—*Febrif.*; *Tonic*; *Antispas.*—*Uses*: Asthma & dyspnea, emphysema, malaria, & dysentery.—*Extern.*, in endometr. & ulcerat. cervix.—*Doses*: 15-60 grains (1-4 Gm.) in powd.—*Alcoh. extr.*, 2-5 grains (0.12-0.3 Gm.).—*Aqu. extr.*, 2-5 grains (0.12-0.3 Gm.).—*Fld. extr.*, 15-60  $\text{ml}$  (1-4 Cc.).—*Tinet.* (of bark or wood) 30-60  $\text{ml}$  (2-4 Cc.).

### Aspidospermine Merck.—Amorph.

(570

Fr. bark *Aspidosperma* Quebracho-blanco, Schlecht.—Essentially a mixt. of the amorph. quebracho bases.—Amorph., brownish-yellow powd.; bitter taste; alk. react.—*Sol.* A., E., C., B.—Respiratory poison.—*Uses*: Dyspnea,

asthma, spasm. croup, &c. "The digitalis of the lungs."—*Dose* 1-1 $\frac{1}{2}$  grains (0.06-0.1 Gm.), several t. p. d., in pills.

### Aspidospermine Fraude-Merck.—Cryst.

(1850

Fr. *Aspidosperma* Quebracho-blanco, Schlecht —  $C_{22}H_{30}N_2O_2$ . Wh. need. or pointed prisms.—*Sol.* A., E., C., B.—*Melt* 206° C.—*Uses*: As of preceding, us'y in form of readily solub. sulphate.—*Dose*  $\frac{1}{60}$ - $\frac{1}{30}$  grain (0.001-0.002 Gm.).

### Aspidospermine Citrate Merck.—Amorph.

1000

Faintly reddish-yellow amorph. powd.—*Sol.* W., A.

### Aspidospermine Hydrochloride Merck.—Amorphous

(1000

Yellowish-brown powd.—*Sol.* W., A.

### Aspidospermine Sulphate Merck.—Amorphous

(1000

Yellowish-brown powd.—*Sol.* W., A.

#### do. Fraude-Merck.—Cryst.

(1850

( $C_{22}H_{30}N_2O_2$ ) $_2 \cdot H_2SO_4$ .—Wh. cryst.—*Sol.* W., A.—*Uses*: In typhoid, when quinine fails to lower temperat.—*Dose*  $\frac{1}{60}$ - $\frac{1}{30}$  grain (0.001-0.002 Gm.) subcut.

### Aspirin

(9

(Acetylsalicylic Acid).— $C_9H_8O_4 \cdot COCH_3 \cdot COOH$ .—Colorl. cryst.—*Sol.* A., E.; sl. W.—*Melt.* 135° C.—*Antipy.* & *Antirheumat.* as succedan. for salicylic acid & salicylates.—*Dose* 5-15 grains (0.3-1 Gm.) 3 to 4 t. p. d.

*Asplenium Ruta-Muraria*.—see **Ruta-Muraria**

### Asterol

(15

(Mercury - Paraphenolsulphonate Ammonium-Tartrate). —  $C_{12}H_{10}O_8S_2Hg \cdot 4(C_6H_5O_6[NH_4])_2 + 8H_2O$ .—Brown powd.—10.41% Hg.—*Antisep.* —*Uses*: Instead of carbolic acid & corros. sublim. in 0.2-0.4% solut.

*Athamanta*.—see **Oreoselinum**

### Atherospermine

Fr. bark *Atherosperma moschatum*, Labill. (Australian sassafras).— $C_{30}H_{20}NO_8$  (Zeyer).—Wh., amorph. powd., or wh. lumps; bitter taste.—*Sol.* A., acids; sl. in W.—*Melt.* 128° C.—*Diaphor.*; *Diuret.*

### Atoxyl

(60

(Arsenic-acid Anilide).— $C_6H_5 \cdot NHAsO_2$ .—Wh., cryst., odorl. powd.—37.7% As.—*Sol.* W.—*Uses*: As of o. arsenicals.—*Dose*  $\frac{3}{4}$ -3 grains (0.05-0.2 Gm.) p. d. subcut.

*Atropamine*.—see **Apoatropine**

*Atropia*.—see **Atropine**

### Atropin (Resinoid).—(Not the Alkaloid Atropine!)

(80

Resinous extr. fr. *Atropa Belladonna*, L., containing atropine.—Brown powd.; bitter taste.—*Sol.* A.—*Mydr.*; *Sed.*; *Analg.*—*Uses*: To relieve pain, & in spasmodic dis.—*Dose*  $\frac{1}{20}$ - $\frac{1}{12}$  grain (0.003-0.005 Gm.) 3 or 4 t. p. d. in pill or powd.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Atropine Merck.—Alkaloid.—Cryst. (130)**

(Atropia).—Alkaloid fr. lvs. & roots *Atropa Belladonna*, L.— $C_{17}H_{23}NO_3$ .—Wh., acic. cryst.; bitter, acid taste.—*Sol.* 450 W., 1.46 A., 16.6 E., & 1.56 C. at 25° C.—*Melt.* 112–113° C.—*Antispasmodic*; *Analg.*; *Mydr.*; *Respir.* & *Card.* *Stim.*; *Antisialag.* & *Antihidr.*—*Uses: Intern.*, Antidot to pilocarpine, chloral, chloroform, hydrocyanic acid, fungus poison, & morphine; in angina pectoris, shock, colliquat. sw., ptyal., gastric ulcer, &c.—*Extern.*, oint. (1%), or oleate is used, as analg.; as mydr., 0.5% solut.—*Dose*  $\frac{1}{120}$ – $\frac{1}{60}$  grain (0.0005–0.001 Gm.).—*Max. D.*  $\frac{1}{60}$  grain (0.001 Gm.), single;  $\frac{1}{20}$  grain (0.003 Gm.) daily.—*Antid.*, emetics, stomach tube, pilocarpine ( $\frac{1}{3}$ –1 grain [0.02–0.06 Gm.]), muscarine nitrate, or  $\frac{1}{10}$ – $\frac{1}{5}$  grain (0.005–0.01 Gm.) morphine, hypoderm.; tannin, or charcoal before absorp.—*Incomp.*; *Chem.*, alkalies, tannin, salts of mere.—*Physiol.*, morphine, pilocarpine, muscarine, aconitine, & physostigmine.—*Caut.* Keep fr. air & light, in well-stp. amber vials. Very poisonous! Handle with care.

*Note.*—The uniformly high purity of Atropine Merck insures uniformly perfect physiological results.

**Atropine Arsenate Merck (300)**

( $C_{17}H_{23}NO_3$ )<sub>2</sub>.H<sub>3</sub>AsO<sub>4</sub>.—Wh., cryst. powd., cont. 19.7% arsenic acid & 80% of atropine.—*Sol.* W., A.—*Caut.* Very poisonous!

**Atropine Borate Merck (300)**

( $C_{17}H_{23}NO_3$ )<sub>2</sub>.B<sub>4</sub>O<sub>7</sub>.—Wh. cryst.—*Sol.* W., A.—*Uses:* Ophthalmic practice.

**Atropine Hydrobromide Merck (300)**

$C_{17}H_{23}NO_3$ .HBr.—Wh. cryst.—*Sol.* W., A.—*Mydriatic.*—*Uses*, &c.: As of atropine.

**Atropine Hydrochloride Merck (300)**

$C_{17}H_{23}NO_3$ .HCl.—Wh. cryst.—*Sol.* W., A.; sl. E.—*Mydr.*, &c.—*Uses*, *Antid.*, *Incomp.*, & *Caut.*: As of atropine.—*Dose*  $\frac{1}{100}$ – $\frac{1}{60}$  grain (0.0006–0.001 Gm.).

**Atropine Methylbromide Merck (600)**

(Methylatropine Bromide).— $C_{18}H_{26}NO_3$ .Br.—20.84% Br.—Wh. cryst.—*Sol.* W.; dil. A.; sparingly in absol. A., C.—Efficient *Mydriatic*; *Antihidrotic.*—*Uses:* Ophthalmology instead of atropine, & to check excessive sweating in pth. Also in migraine, cephalalgia, cutan. dis., tuberc., bronch., laryng., keratitis, cystitis, insomnia, neurasth., hysteria, tussis & pertussis, epil., myocarditis, dyspnoea, &c.—*Dose: Intern.*,  $\frac{1}{20}$  grain (0.002 Gm.) 2 t. daily; *subcutan.*,  $\frac{1}{4}$  to 1 syringe-ful of a 0.5% solut. in cherry-laurel water; *extern.*, in ophthalm. surgery in 0.03% solut. or 0.1% oint.

**Atropine Nitrate Merck (300)**

$C_{17}H_{23}NO_3$ .HNO<sub>3</sub>.—Wh. cryst.—*Sol.* A., W.—*Uses*, &c.: As of atropine.

**Atropine Oleate**

2% solut. atropine in oleic acid.—*Sol.* E., B., C., & oils.—*Mydr.*; *Sed.*; *Anod.*—*Uses:* Inunction in whoop-cough, shock, & spasm where medic. cannot be properly given by mouth.

**Atropine Salicylate Merck (275)**

$C_{17}H_{23}NO_3$ .C<sub>7</sub>H<sub>5</sub>O<sub>2</sub>.—Wh. cryst.—*Sol.* W., A., C.—*Uses*, &c.: As of atropine. Claimed preferable to sulphate or alkaloid.

**Atropine Santonate (Not Santoninate)**

Wh., non-hygros., amorph. powd.—*Sol.* W.—*Uses:* Non-irritating solut's of atropine.—*Caut.* Keep in dark amber bot. to prevent formation of photo-santoninic acid.

**Atropine Santoninate (Not Santonate)**

$C_{17}H_{23}NO_3$ .C<sub>15</sub>H<sub>20</sub>O<sub>4</sub>.—Wh. powd.—*Sol.* W.—*Melt.* 113–115° C.—*Uses:* Ophthalmic practice in preference to o. atropine salts as it keeps better.—*Caut.* Keep in dark bot.

**Atropine Sulphate Merck (109)**

( $C_{17}H_{23}NO_3$ )<sub>2</sub>.H<sub>2</sub>SO<sub>4</sub>.—Wh., perfectly neutral, cryst.; absol. free fr. acid or alkali; almi. inactive.—*Sol.*, abt. 0.4 W., 3.7 A., 2140 E., & 620 C. at 25° C. (U. S. P.).—*Melt.*, abt. 189.9° C.—*Uses*, *Antid.*, *Incomp.* & *Caut.*: As of atropine.—*Dose*  $\frac{1}{100}$ – $\frac{1}{50}$  grain (0.0006–0.0012 Gm.).

*Note.*—Atropine Sulphate Merck is prepared from the highly pure alkaloid, & affords uniformly perfect physiological results.

**do. Merck.—Natural, cryst. (109)**

Mixt. of hyoscyamine sulphate & atropine sulphate.—Wh. cryst.—*Sol.* W., A.—*Melt.* 190–193° C.

**Atropine Valerate Merck (325)**

( $C_{17}H_{23}NO_3$ .C<sub>5</sub>H<sub>10</sub>O<sub>2</sub>)<sub>2</sub>.H<sub>2</sub>O.—Wh., transp. cryst.—*Sol.* W., A., E.—*Uses*, &c.: As of atropine.—*Max. D.*  $\frac{1}{60}$  grain (0.001 Gm.) single;  $\frac{1}{20}$  grain (0.003 Gm.) daily.

**Atroscine Merck (3200)**

Inactive form of hyoscyne.— $C_{17}H_{21}NO_4$  + H<sub>2</sub>O.—Transp., colorl. cryst.—*Sol.* A., E., C.; v. sl'y W.—*Melt.* 50–52° C.—*Uses:* Myotic in 1% solut. in castor oil.—*Intern.*, sedat. & hypnot., like hyoscyamine & scopolamine.

**Atroscine Hydrobromide Merck (2000)**

$C_{17}H_{21}NO_4$ .HBr + 3H<sub>2</sub>O.—Rhomb. cryst.—*Sol.*, eas. W., A.—*Melt.*, abt. 180° C. (when anhydrous).

**Aubipine.—see Aldehyde Anisic****Auramine, Medicinal.—see Pyoktanin Yellow****Auramine Yellow Merck (12)**

(Amidotetramethyldiamidodiphenylmethane Hydrochloride).—Sulphur-yellow powd.—*Sol.* A., W., E.—*Uses: Techn.*, for improving appearance of sugar; & dyeing cotton, wool, silk, leather, & paper.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

*Aurantium.*—see **Orange**

*Aureoline.*—see **Primuline Yellow**

*Auric & Aurous Salts.*—see under **Gold**

**Aurin Red Merck** (8)

Mixt aurin or pararosanolic acid trioxyltriphenyl-carbhydryde), methylaurin, & corallin-platatin.—Yellowish-brown lumps; greenish fracture.—*Sol.* A; insol. W.—*Uses.* Coloring spirit varnishes & lacquers, & manuf. tapestries & colored paper; indicator f. alkalies.—See also Rosolic Acid.

*Aurine R.*—see **Coralline**

*Australene.*—see **Pinene, Dextrogyrate**

*Austrian Cinnabar.*—see **Lead Chromate, Basic**

*Ara-Ara.*—see **Kava-Kava**

**Avena**

(Common Oat).—The seed of *Avena sativa*, L. Gramineae; also a farina or meal prepared therefrom.—*Habit.*: All temperate zones.—*Etymol.*: Lat. "avena," oat (Plinius).—*Constit.*: Starch; proteids (chiefly avenin); fixed oil; gum; cellulose; sugar.—*Uses.*: Meal is demulc., lax.; Dietet.; Nutr. in form of gruel, & soup; also in enemata, as vehicle for irritant remedies. Also considered as nerve tonic, stim., & antispasm.—*Dose* 10-30 m (0.6-2 Cc.) of conc. alcohol. tinct., w. hot W., as nerve tonic, stim., & antispasm.

**Avenin Merck** (20)

(Legumin).—Albuminoid fr. *Avena sativa*, L. (Oats), prob'ly ident. w. gluten casein.—Yellow to yellowish-wh. powd.

*Arens.*—see **Geum**

*Azungia Porci.*—see **Lard**

*Arwort.*—see **Coronilla**

*Azalcine.*—see **Fuchsine**

**Azedarach**

(Pride of India; Common Bead Tree; Margosa Bark).—Bark of root of *Melia Azedarach*, L. Meliaceae.—*Habit.*: China to India; widely cultiv. & natur. in tropical countries.—*Etymol.*: Fr. Persian "āzād," free, & "dirakht," a tree. Grk. "melia," the ash tree, i.e., the tree resembles the ash.—*Constit.*: Bitter resin.—*Uses.*: Anthelm.—*Dose*: fld. extr., 10-30 m (0.6-2 Cc.).

*Azin Blue.*—see **Indulin, Alcohol-soluble**

*Azo-acid Yellow C.*—see **Azoflavin 2**

**Azobenzene Merck.**—Pure (10)

(Azobenzol; Azobenzide; Benzencazobenzene).—Fr. nitrobenzene, by act. sodium stannite.— $C_{12}H_{10}N_2$ , or,  $C_6H_5.N_2.C_6H_5$ .—Yellow scales, or plates.—*Sol.* 20 A., E.—*Melt.* 68° C.—*Boil.* 293° C.

do. **Merck.**—Commercial (5)

*Azobenzide.* } —see **Azobenzene**  
*Azobenzol.* }

**Azoflavin 2 Merck** (7)

(Azo-acid Yellow C.; Indian Yellow).—Mixt. of nitrated diphenylamine orange & nitrodiphenylamines.—Ochre-yellow powd.—*Sol.*, hot W.—*Uses.*: Dyeing wool & silk acid-fust.

**Azolitmin Merck** (100)

Principal coloring matter litmus— $C_{12}H_7NO_4$ .—Blackish-violet powd. or scales.—*Sol.* W.; insol. A., E.; w. alkalies forms blue sol. salts.

**Azolitmin Merck.**—Reagent (110)

Partic. pure litmus color. matter.—Blackish-violet scales.—Indicator solut.: 1 Gm.+80 Cc.  $H_2O$  & heat.+20 Cc. alcohol, & filter when cold.—*Tests.*: (*Sensit.*) 0.1 Cc. solut.+50 Cc.  $H_2O$  free fr. alkali &  $CO_2$ —bluish-red color changed to red by at most 0.05 Cc. decinorm. HCl, & changed to bluish-violet by at most 0.05 Cc. decinorm. KOH.—*Uses.*: Indicator, replacing solut. litmus.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Azolitmin Paper**

Wh. paper charged w. azolitmin.—*Uses.*: Indicator; reddish-violet color of paper changed to blue by alkalies, & to red by acids.

## B

*Babirung.*—see **Embelia**

**Baccharis**

(Groundsel; Mio-Mio).—Lvs. & tops of *Baccharis cordifolia*, D. C. Compositae.—*Habit.*: Argentine Republic; Brazil; Uruguay.—*Etymol.*: Fr. Grk. "Bacchos," the god of wine in whose honor *Baccharis halimifolia* was named because of its pleas. odor. "Cordifolia," heart-shaped, referring to shape of lvs.—*Constit.*: Baccharine (toxic alkaloid).

*Badger's Bane.*—see **Aconitum Lycoctonum**

**Bael**

(Bela; Bengal Quince; Indian Quince; Bêl; Indian Bael; Aegle).—Unripe or half-ripe fruit of *Aegle Marmelos*, Correa. Rutaceae.—*Habit.*: East India; Hindustan.—*Etymol.*: "Bêl" is the East Indian name of the plant. "Aegle" is the name of one of the Hesperides, whose duty it was to guard an orchard bearing golden apples (bael fruit resembles an apple in shape & color). "Marmelo" is the Portuguese for quince, i.e., the fruit was formerly called "marmelos de Benguala," Bengal quince.—Round, size of large orange; extern., yellowish-brown, smooth, slightly gran. & hard; contains 10-15 seeds imbedded in a transp. yellowish or reddish pulp; agre. arom. odor & taste.—*Constit.*: Tannin; mucilage; sugar; volat. oil.—*Uses.*:

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



Astring. in diarrh & dysent.—*Doses*: 15–30 grains (1–2 Gm.).—Alcoh. extr., 30–60 grains (2–4 Gm.).—Fld. extr., 1–2 fl. dr. (4–8 Cc.).

*Baking Soda*.—see **Sodium Bicarbonate**

### Ballota

(Wooly Motherwort).—Lvs. & tops of *Ballota* (*Leonurus*) *lanata*, L. Labiate.—*Habit.*: Central & Northern Asia.—*Etymol.*: Fr. Grk. “ballein,” to reject, because of the repugnant odor of *B. nigra*. “*Lanatus*” fr. Lat. “lana,” wool, i.e., wooly.—*Constit.*: Volat. oil; bitter prin.; tannin.—*Uses*: Antirheumat.; Antipodagr.; Diuret.; Stim.

*Balm*.—see **Melissa**

*Balm Gilead*.—see **Balsam Canada**

*Balmomy*.—see **Chelone**

### Balsam, Canada (Canada Turpentine) (1

(Balsam of Fir; Balm of Gilead [improperly]).—Liq. oleoresin fr. *Abies balsamica*, (L.) Miller (Balm-of-Gilead Fir). *Coniferæ*.—*Habit.*: Canada, & Northern U. S. to Va., west to Minnesota.—Yellowish, transp., visc. liq.; agre., pine-like odor; bitter taste.—*Sol.* E., C., benzine, xylene, oil turp., oils; dries on expos. to a transp. solid mass.—*Constit.*: Pinene; bornyl acetate; resin; ethereal oil.—*Uses*: Domestic practice, abrasives & sl. wounds.—*Intern.*, in dis. of bronch. & urethral muc. membr.—*Extern.*, in plasters.—*Micros.*, for mounting.—*Dose* 5–20 grains (0.3–1.3 Gm.) in pills.

### Balsam Cannabis Indica Denzel-Merck (60

Fr. *Cannabis indica*.—*Uses*: Like other *Cannabis indica* extr. Very uncertain in effects, as even doses of  $\frac{1}{6}$  grain (0.01 Gm.) sometimes produce toxic symptoms.

*Balsam Capivi*. } —see **Copaiba**  
*Balsam Copaiba*. }

*Balsam Fir*.—see **Balsam Canada**

### Balsam Gurjun (1

(Wood-Oil; “East Indian Copaiba”).—Oleo-resin fr. *Dipterocarpus turbinatus*, Gaertner, *Dipterocarpeæ*, & other sp. of D.—*Habit.*: Eastern India & Burmah.—*Etymol.*: Grk. “dipteros,” two-winged, & “carpos,” fruit.—Transp., pale-yellow to dark-red, fluoresc., viscid liq.—*Sol.* E., C., CS<sub>2</sub>, & ethereal oils; partly in absol. A., E., & B.—*Sp. Gr.* 0.947–0.964 (Flückiger); hardens with alkaline earths like copaiba.—*Constit.*: Etheral oil; gurgunic acid, C<sub>22</sub>H<sub>34</sub>O<sub>4</sub>; resin.—Antisept.; Diuret.; Lax.—*Uses*: Dis. of muc. memb., lepra, & syph., like copaiba.—*Extern.*, in oint. & plaster in skin dis.—*Dose* 10–60 grains (0.6–4 Gm.) 2–4 t. p. d. in pills, emuls., or capsules.

### Balsam Peru.—U. S. P. (3

(Peruvian Balsam; Indian Balsam; China Oil; Black Balsam).—Fr. *Toluifera Pereira*, (Royle) Bail. (*Myroxylon Pereira* Klotzsch). Legumi-

nosæ.—*Habit.*: Central America (San Salvador) in forests near Pacific coast.—*Etymol.*: Fr. Lat. “tolu” & “fero,” bearing tolu or an allied balsam; & “Pereira,” in memory of Jonathan Pereira (1804–1853). “Peru,” fr. “T. Peruvifera,” fr. which the balsam was formerly erroneously believed to be obtained.—Dark, molasses-like liq.; pleas., arom. odor; warm, bitter taste & persistent after-taste.—*Misc.*, acetone, absol. A., C., glac. acetic acid; partly sol. in E. & benzine.—*Sp. Gr.* 1.140–1.150.—*Constit.*: Cinnamene (60%); benzoic and cinnamic acids; resin; styracine; vanillin; perurresino-tannol esterified w. cinnamic acid.—Expector.; Stim.; Stomachic; Antisept.—*Uses*: *Intern.*, chron. catarrh, gonorr., leucorr., palsy, rheumat., amenorr., asthma, phth., &c.—*Extern.*, tubercular affect. of bone, skin, &c.; chron. indol. ulcers, scabies, sore nipples, chilbl., lice, &c.—*Techn.*, perfumery & chocolate manuf.; also for masking odor of iodoform.—*Dose* 5–30 m (0.3–2 Cc.) 4 to 8 t. p. d. in caps.—*Incomp.*, ferric salts; iodoform; hydrogen dioxide.

*Balsam, Storax*.—see **Storax**

*Balsam, Sulphur*.—see **Oil Linseed Sulphurated**

### Balsam Tolu.—U. S. P. (1

(Thomas Balsam; Opobalsam; Resin Tolu).—Fr. *Toluifera Balsamum*, L. (*Myroxylon toluiferum* H. B. K.). Leguminosæ.—*Habit.*: South America (Venezuela, Colombia, Peru) on elevated plains & mountains.—*Etymol.*: Fr. “Tolu,” a seaport on the Caribbean Sea; & Lat. “balsamum,” fr. Grk. “balsamon,” the secretion of the balsam tree.—Yellowish-brown, semi-fluid or nearly solid resinous mass; arom. odor & taste; brittle wh. cold.—*Sol.* A., E., C., acetone & solut. potassa; insol. W., B.; partly in CS<sub>2</sub>.—*Sp. Gr.* 1.200.—*Melt.* 60–65° C.—*Constit.*: Benzoic & cinnamic acids; cinnamene; styracine; vanillin; toluenesinotannol esterified w. cinnamic acid.—Expector.; Antisept.—*Uses*: Tubercular, chron. bronch. catarrh, coughs, &c.—*Dose* 10–30 grains (0.6–2 Gm.) 4–8 t. p. d. in caps. or pastilles.—*Tinct.* (1:10), 20–40 m (1.3–2.6 Cc.).

### Balsam Traumatic.—N. F.

(Friar's Balsam; Turlington's Balsam).—Alcohol. tinct. fr. benzoin, storax, balsams Tolu & Peru, aloes, myrrh, & angelica.—*Etymol.*: Fr. Grk. “traumatikos,” pertaining to or caused by a wound or injury.—Antisept.—*Uses*: *Intern.*, antisept. in bowel & stomach affect.—*Extern.*, inflam., wounds, bruises, & sores.—*Dose* 30–60 m (2–4 Cc.).

### Baptisia

(Wild Indigo; Indigo Weed; False Indigo; Yellow Indigo).—Root of *Baptisia tinctoria*, Robert Brown. Papilionaceæ.—*Habit.*: North America.—*Etymol.*: Grk. “baptizein,” to dye, i.e., the wood dyes red.—*Constit.*: Baptisin (a purgative glucoside); baptisin (bitter glucoside); baptitoxine (baptisine), an alkaloid. Small

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaicol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

doses mildly laxative; large doses Emeto-Cathartic; Antisept.; Astring. — *Uses*: Typhoid & scarlet fever, & diphth. — *Extern.*, in diphth. & scarlat fever throat, in del. ulcers, gangrenous, &c. — *Dose*: 5-15 grains (0.3-1 Gm.). — *Flid. extr.*, 5-30 fl. (0.3-2 Ce.). — *Emet.*, 10-60 fl. (0.5-4 Ce.).

## **Baptisia Merck.** Pure (60)

Fr. *Baptisia tinctoria*, R. Brown. (Wild Indigo plant). — Brownish mac. — *Emet.* large doses; Laxat., Tonic & Astring. in small doses. — *Uses*: Scar. fever, chron. dysent., &c. — *Dose*:  $\frac{1}{2}$ -5 grains (0.03-0.3 Gm.), in powd. or pills.

## **Baptisin (Eclectic)** (15)

Precipitated extr. fr. *Baptisia tinctoria*, R. Brown (Wild indigo plant). — Dark brown powd. — *Sol.* A. — Tonic; Astring. — *Uses*, &c.: As of pure Baptisin. — *Dose*: 1-8 grains (0.06-0.5 Gm.).

*Baptiloxine*. — see **Cytisine**

*Barabang*. — see **Embelia**

*Barbaloin*. — see **Aloin**

## **Barbatimaô**

(Barbiniao; Astringent Bark; Cortex Adstringens Brasiliensis. — Bark of *Stryphnodendron Barbatimaô* (Polyphyllum) Mart.; or, of *Acacia adstringens* Reisse, Mimosaceæ. Leguminosæ. — *Habit.*: Brazil. — *Etymol.*: Fr. Grk. "stryphnos," astringent, & "dendron," tree. — *Constit.*: Peetin & tannin. — *Uses*: Astring.

*Barberry, Holly-leaved*. — see **Berberis Aquifolium**

*Bardana*. — see **Lappa**

## **Barff's Boroglycerin**

Satur. solut. boric acid in glycerin. — *Uses*: As preservative for animal & vegetable specimens.

## **Barfoed's Reagent.** — For glucose

Aqu. solut. cupric acetate acidulated w. acetic acid. — Reduced by glucose at ord. temp.

## **Barium.** — By electrolysis (10000)

*Etymol.*: Grk. "baros," heavy, because of the high sp. gr. of the barium compounds. — Metallic element. — Ba. — Golden yellow, sl. lustrous, somewh. malleable.

### do. Merck. — Fr. Amalgam (2000)

Fr. barium amalgam by heat. in hydrogen.

## **Barium Acetate Merck.** — Highest Purity, cryst. (2)

Ba(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub> + H<sub>2</sub>O. — Wh. prisms. — *Sol.* W. — *Antid.*, for all barium salts; Sod. or magnesium sulph.; emetics; stomach siphon.

### do. Merck. — Highest Purity, dry (2)

### do. Merck. — Pure, cryst. (1)

## **Barium Acetate Merck.** — Reagent (4)

Ba(CH<sub>3</sub>COO)<sub>2</sub> + H<sub>2</sub>O. — Wh., cryst. powd. — *Sol.* 2 W.; abt. 100 A. — *Tests*: (Cl) 1 Gm. + 20 Ce. H<sub>2</sub>O + HNO<sub>3</sub> + solut. AgNO<sub>3</sub> — no turb. — (Ca; Alkalies) 5 Gm. + 200 Ce. H<sub>2</sub>O + 2 Ce. HCl (sp.

gr. 1.124), heat to boil., add 15 Ce. dil. H<sub>2</sub>SO<sub>4</sub>, let stand 12 hrs. & filter. Mix filtrate w. 85% A — not more than faint opalesc.; evap. in platin. dish & ignite — not more than 0.004 Gm. res. — (*Heavy Met.*) 20 Ce. 1.20 aqu. solut. + a; aqu. H<sub>2</sub>S; & b; NH<sub>4</sub>OH + (NH<sub>4</sub>)HS — no dark color, or ppt. in either case. — (HNO<sub>3</sub>) 1 Gm. + 10 Ce. H<sub>2</sub>O + 1 drop 1.1000 indigo solut. + 10 Ce. conc. H<sub>2</sub>SO<sub>4</sub> — blue color should not disappear. — *Uses*. — *Determ.* Ca, alkalies, & H<sub>2</sub>SO<sub>4</sub>.

*Note*. — For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## **Barium Amylsulphate Merck** (8)

Ba(C<sub>8</sub>H<sub>17</sub>SO<sub>4</sub>)<sub>2</sub> + 2H<sub>2</sub>O. — Colorl. cryst. — *Sol.* W., A.

## **Barium Benzenesulphate Merck** (6)

(Barium Benzolsulphate). — Ba(C<sub>6</sub>H<sub>5</sub>SO<sub>3</sub>)<sub>2</sub> + H<sub>2</sub>O. — Wh. cryst. — *Sol.* A., W.

## **Barium Benzoate Merck** (10)

Ba(C<sub>7</sub>H<sub>5</sub>O<sub>2</sub>)<sub>2</sub> + 2H<sub>2</sub>O. — Sm., colorl. laminæ. — *Sol.* W. — *Uses*: Heart stim. inst. of digitalis, in varicose veins & aneurisms.

*Barium Benzolsulphate*. — see **Barium Benzene-sulphate**

*Barium Bichromate*. — see **Barium Dichromate**

## **Barium Binoxalate Merck** (2)

(Acid Barium Oxalate). — Ba(HC<sub>2</sub>O<sub>4</sub>)<sub>2</sub> + 2H<sub>2</sub>O. — Wh. cryst. — *Sol.*, sl. W.

## **Barium Borate Merck** (2)

BaB<sub>2</sub>O<sub>4</sub> + 10H<sub>2</sub>O (?). — Wh. powd. — *Sol.* W.

## **Barium Borotungstate Merck** (25)

(Barium Borowolframate). — 2BaO.B<sub>2</sub>O<sub>3</sub>.9WO<sub>3</sub> + 18H<sub>2</sub>O. — Quadratic octah. cryst. — *Sol.* W.

*Barium Borowolframate*. — see **Barium Borotungstate**

## **Barium Bromate Merck** (5)

Ba(BrO<sub>3</sub>)<sub>2</sub> + H<sub>2</sub>O. — Wh., cryst. powd. — *Sol.* A.; hot W.; sl'y cold W.

## **Barium Bromide Merck.** — Cryst. (6)

BaBr<sub>2</sub> + 2H<sub>2</sub>O. — Colorl. cryst. — *Sol.* W., A.

## **Barium Carbonate Merck.** — Highest Purity, precipitated (2)

BaCO<sub>3</sub>. — Wh. powd. — *Sol.*, acids; solut. amm. chloride, nitrate, or succinate. — *Uses*: Prepar. o. barium salts. — *Caut.* Poison!

### do. Merck. — Pure, precip. (1)

### do. Merck. — Precip. (1)

*Uses*: Rat poison, paper manuf., &c.

## **Barium Carbonate Merck.** — Reagent (4)

BaCO<sub>3</sub>. — Wh. powd.; alm. insol. W. — *Tests*: (*Impur. Insol. in HCl*) 5 Gm. compl. solub. in 10 Ce. HCl (sp. gr. 1.124) + 50 Ce. H<sub>2</sub>O. — (Ca; Alkalies) 5 Gm. + 10 Ce. HCl (sp. gr. 1.124) + 200 Ce. H<sub>2</sub>O, heat to boil., add 15 Ce. dil. H<sub>2</sub>SO<sub>4</sub>,

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



let stand 12 hrs., & filter. Mix filtrate w. 85% A., at most only faint opalesc.; evap. in platin. dish & ignite—not more than 0.003 Gm. res.—(*Heavy Met.*) *a*: 1 Gm. + 5 Ce. HCl (sp. gr. 1.124) + 15 Ce. H<sub>2</sub>O + *a*: aqu. H<sub>2</sub>S; & *b*: NH<sub>4</sub>OH + (NH<sub>4</sub>)HS—no dark color or ppt. in either case.—(*C*) 1 Gm. + 5 Ce. HNO<sub>3</sub> (sp. gr. 1.153) + 15 Ce. H<sub>2</sub>O (heat if rapid solut. desired) + AgNO<sub>3</sub>—no turb.—(*HNO<sub>3</sub>*) 1 Gm. + 10 Ce. dil. C<sub>2</sub>H<sub>5</sub>O<sub>2</sub> + 1 drop 1:1000 indigo solut. + 10 Ce. conc. H<sub>2</sub>SO<sub>4</sub>—blue color should not disappear.—*Uses*: Separ. of iron, & Al fr. Zn, Mn, &c.; prepar. other salts.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Barium Chlorate Merck.**—Cryst. or powder (1)  
Ba(ClO<sub>3</sub>)<sub>2</sub> + H<sub>2</sub>O.—Colorl., monoel. prisms or wh. powd.—*Sol.* W.—*Uses*: Pyrotechn.; dyeing.

**do. Merck.**—Pure cryst. (1)

**Barium Chloride Merck.**—Highest Purity, cryst. & powd.—Indifferent to Potass. Permang. (1)

BaCl<sub>2</sub> + 2H<sub>2</sub>O.—Colorl., flat, four-sided cryst.; bitter, salty taste.—*Sol.* 2 1/2 W., alm. insol. A.—*Cardiac Tonic & Alter.*—*Uses*: *Intern.*, arter. sclerosis & atherom. degen., syph., scrofula, &c.; also in veter. med. in colic of horses.—*Extern.*, eye-wash in 1:60–100 solut. Also anal. & techn.—*Dose* 1/2–1 1/2 grains (0.03–0.1 Gm.) 3–4 t. p. d., in 1% sweet., arom. solut.—*Inj.*, intraven., in horse colic, 6–20 grains (0.36–1.3 Gm.) in aqu. solut.—Per os, 150–180 grains (10–12 Gm.).—*Max. D.*, for man, 3 grains (0.2 Gm.) single; 10 grains (0.6 Gm.) daily.

**do. Merck.**—Purified (1)

**do. Merck.**—Impalpable powder (1)

*Uses*: Prepar. other barium salts, e.g. barium white; preventing boiler incrustations; rat & mouse poison.

**Barium Chloride Merck.**—Reagent (2)

BaCl<sub>2</sub> + 2H<sub>2</sub>O.—Colorl. cryst.—*Sol.* 2.5 cold, & 1.5 hot W.; insol. A.—*Tests*: (*Alkalies*) 3 Gm. + 100 Ce. H<sub>2</sub>O + 2 Ce. HCl (sp. gr. 1.124), heat to boil., add 10 Ce. dil. H<sub>2</sub>SO<sub>4</sub>, let stand 12 hrs., & filter; evap. filtrate in platin. dish, & ignite—not more than 0.001 Gm. res.—(*CaCl<sub>2</sub>*; *SrCl<sub>2</sub>*) shake 1 Gm. + 20 Ce. absol. A. 5 minutes, filter, evap. filtrate, & ignite—no wghble res.—(*Heavy Met.*) 20 Ce. 1:2 aqu. solut. + *a*: aqu. H<sub>2</sub>S; & *b*: NH<sub>4</sub>OH + (NH<sub>4</sub>)HS—no dark color or ppt. in either case.—(*HNO<sub>3</sub>*) 1 Gm. + 10 Ce. H<sub>2</sub>O + 1 drop 1:1000 solut. indigo + 10 Ce. conc. H<sub>2</sub>SO<sub>4</sub>—blue color must not dissap.—(*HClO<sub>3</sub>*) heat 2 Gm. powd. + 10 Ce. conc. HCl in test-tube—neither cryst. nor solut. should exhibit yellow color, and no chlorine odor should be percept.—*Uses*: Determ. H<sub>2</sub>SO<sub>4</sub>.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Barium Chromate Merck.**—Highest Purity (2)  
BaCrO<sub>4</sub>.—Heavy, yellow, cryst. powd.

**do. Merck.**—II (1)

BaCrO<sub>4</sub>.—Heavy, yellow, cryst. powd.—*Sol.*, acids; insol W.—*Uses*: Yellow paint; Swedish matches.

**Barium Citrate Merck** (6)

(Normal Barium Citrate).—Ba<sub>3</sub>(C<sub>6</sub>H<sub>5</sub>O<sub>7</sub>)<sub>2</sub> + 7H<sub>2</sub>O.—Wh., amorph. powd.—*Sol.* W.

**Barium Cyanate Merck** (30)

Ba(CNO)<sub>2</sub>.—Wh., cryst. powd.—*Sol.*, sl. W.

**Barium Dichromate Merck.**—Pure, cryst. (5)

(Barium Bichromate).—BaCr<sub>2</sub>O<sub>7</sub> + 2H<sub>2</sub>O.—Brown, cryst. masses.—*Sol.* W. cont'g chromic acid.

**Barium Dioxide Merck.**—Pure, anhydrous (2)

(Barium Peroxide).—Fr. barium oxide by heat. in oxygen, or fr. barium nitrate by heat.—BaO<sub>2</sub>.—Grayish-wh. powd.

**do. Merck.**—Techn., anhydrous (1)

BaO<sub>2</sub>.—Heavy, grayish-wh. powd., decomp. on expos.—*Sol.*, dil. acids.—*Uses*: Making solut. hydrogen peroxide; oxygen (Brin process); bleaching animal substances & vegetable fibers; glass industry, &c.

**Barium Dioxide Merck.**—Reagent (2)

(Barium Peroxide or Superoxide).—BaO<sub>2</sub>.—Wh. or grayish-wh. powd., at least 82% BaO<sub>2</sub>.—*Sol.*, cold dil. HCl w. decomp.; insol. W.—*Uses*: Prepar. oxygen & H<sub>2</sub>O<sub>2</sub>; bleaching.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Barium Dioxide Hydrated Merck.**—Pure (2)

(Hydrated Barium Peroxide).—BaO<sub>2</sub> + 2H<sub>2</sub>O.—Wh. cryst.—*Sol.*, sl. W.; insol. A., E.

**do. Merck.**—Technical (1)

Wh. powd.

**Barium Diphosphate.**—see Barium Phosphate

**Barium Dithionate.**—see Barium Hyposulphate

**Barium Diuranate.**—see Uranium & Barium Oxide

**Barium Ethylsulphate Merck.**—Cryst. (5)

(Barium Sulphovinate).—Ba(C<sub>2</sub>H<sub>5</sub>SO<sub>4</sub>)<sub>2</sub> + 2H<sub>2</sub>O.—Colorl. cryst.—*Sol.* W., A.

**Barium Ferrocyanide Merck.**—Cryst. (10)

Ba<sub>2</sub>Fe(CN)<sub>6</sub> + 6H<sub>2</sub>O.—Yellowish cryst.—*Sol.*, sl. hot W.

**Barium Fluoride Merck.**—Pure (2)

BaF<sub>2</sub>.—Wh. powd.—*Insol.* W.—*Melt.*, abt. 908° C.—Powerful antisept.

**do. Merck.**—Arsenic-free (1)

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

## Barium Formate Merck (6)

$\text{Ba}(\text{CO}_2\text{H})_2$ .—Colorl., transp., rhombic prisms.—*Sol.* W.

## Barium Hydroxide Merck.—Highest Purity, cryst. (1)

(Barium Hydrate; Caustic Baryta).— $\text{Ba}(\text{OH})_2 \cdot 8\text{H}_2\text{O}$ .—Wh., quadrate tablets; absorb. carbonic acid fr. air.—*Sol.* 20 W. at 15° C.—Caustic.—*Uses:* Chem.—*Caut.* Keep well stoppered.

do. Merck.—Highest Purity, dried (1)

$\text{Ba}(\text{OH})_2 \cdot \text{H}_2\text{O}$ .—Wh. powd.—*Caut.* Keep well stoppered.

do. Merck.—Highest Purity, cryst., free fr. Iron (3)

do. Merck.—Pure, cryst. or dried (1)

*Uses:* Techn., anal.

do. Merck.—Technical (1)

## Barium Hydroxide Merck.—Reagent (2)

(Barium Hydrate).— $\text{Ba}(\text{OH})_2 \cdot 8\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* 20 cold, & 3 boil., W.—*Tests:* (Cl) 1 Gm. + 5 Cc.  $\text{HNO}_3$  (sp. gr. 1.153) + 15 Cc.  $\text{H}_2\text{O}$  +  $\text{AgNO}_3$ —no turb.—(*a:* Alkalies) 3 Gm. + 100 Cc.  $\text{H}_2\text{O}$  + 5 HCl (sp. gr. 1.121), heat to boil., add 10 Cc. dil.  $\text{H}_2\text{SO}_4$ , let stand 12 hrs., filter, evap. filtrate in plat. dish, & ignite—not more than 0.002 Gm. res.—(*Heavy Met.*) 20 Cc. 1:20 solut. + HCl + *a:* aqu.  $\text{H}_2\text{S}$ ; & *b:*  $\text{NH}_4\text{OH}$  + ( $\text{NH}_4$ )—HS—no dark color, or ppt. in either case.—(*Sulphide*) Aqu. 1:20 solut. + HCl—no odor of  $\text{H}_2\text{S}$ ; on add. solut. Pb ( $\text{C}_2\text{H}_3\text{O}_2$ )<sub>2</sub>—no dark color.—*Uses:* Precip. Mg; in fusion of silicates; saponifying fats.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

do. Merck.—Reagent.—Solution (1)

(Baryta Water).—Clear, colorl. liq.; strong alk. react.; 3.3% cryst.  $\text{Ba}(\text{OH})_2$ .—*Tests:* As of preceding, but use 30 Cc. solut. inst. of 1 Gm. cryst.—*Uses:* Reagent for  $\text{CO}_2$ ; also for testing creosote.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## Barium Hypophosphite Merck (6)

$\text{Ba}(\text{PH}_2\text{O}_2)_2 + \text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W.

## Barium Hyposulphate Merck (10)

(Barium Dithionate).— $\text{BaS}_2\text{O}_6 + 2\text{H}_2\text{O}$ .—Transp., colorl., glist., rhombic cryst.—*Sol.* W.

Barium Hyposulphite.—see Barium Thiosulphate

## Barium Iodate Merck (12)

$\text{Ba}(\text{IO}_3)_2$ .—Wh. cryst.—*Sol.*, hot W.

## Barium Iodide Merck (10)

$\text{BaI}_2 + 2\text{H}_2\text{O}$ .—Colorl. cryst. Decomp. & redden on expos.—*Sol.* W., A.—Alter.—*Uses:* Scrof. affect., morb. growths.—*Dose*  $\frac{1}{10}$ – $\frac{1}{2}$  grain (0.006–0.03 Gm.) 3 t. p. d.—*Appl.*, in 1% oint. in hypertrophic glands.—*Caut.* Keep well stoppered.

## Barium Lactate Merck (5)

$\text{Ba}(\text{C}_3\text{H}_5\text{O}_2)_2 + 4\text{H}_2\text{O}$ .—White cryst.—*Sol.* W.; dil. A.

## Barium Manganate Merck (5)

(Manganese, Cassel's, or Rosenstiel's, Green).— $\text{BaMnO}_6$ .—Emerald-green powd.—*Uses:* Techn., as pigment inst. of Scheele's green (not so poisonous).

## Barium Methylsulphate Merck.—Pure, cryst. (6)

$\text{Ba}(\text{CH}_3\text{SO}_4)_2 + 2\text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.* W., A.—*Caut.* Keep well stoppered.

## Barium Molybdate Merck (12)

$\text{BaMoO}_4$ .—Cryst., wh. powd.—*Sol.*, diffie. in acids.

Barium Monosulphide.—see Barium Sulphide

Barium Monoxide.—see Barium Oxide

## Barium Nitrate Merck.—Highest Purity, cryst. or powder (1)

$\text{Ba}(\text{NO}_3)_2$ .—Lustr., colorl. cryst., or wh. powd.—*Sol.* W.—*Uses:* Medic., like barium chloride.—*Techn.*, pyrotechn. & analysis.—*Max. D.* 3 grains (0.2 Gm.) single; 10 grains (0.6 Gm.) daily.

do. Merck.—Cryst. or powder (1)

Wh. powd.

do. Merck.—Fused (2)

Wh. masses.

## Barium Nitrate Merck.—Reagent (2)

$\text{Ba}(\text{NO}_3)_2$ .—Colorl. cryst.—*Sol.* 20 cold, 2.8 boil., W.; insol. absol. A.—*Tests:* (Cl) 1:20 aqu. solut. +  $\text{HNO}_3$  + solut.  $\text{AgNO}_3$ —no turb.—(*Alkalies;* *Heavy Met.*) same as for  $\text{BaCl}_2$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## Barium Nitrite Merck (15)

$\text{Ba}(\text{NO}_2)_2 + \text{H}_2\text{O}$ .—Wh., to yellowish, cryst. powd.—*Sol.* W., A.

## Barium Oleate Merck (6)

$\text{Ba}(\text{C}_{18}\text{H}_{33}\text{O}_2)_2$ .—Wh., granul. masses.—*Sol.* A., E.

## Barium Oxalate Merck.—Pure (2)

$\text{BaC}_2\text{O}_4 + \text{H}_2\text{O}$ .—Wh. powd.—*Sol.*, v. sl. W.

do. Merck.—Technical (1)

Barium Oxalate, Acid.—see Barium Binoxalate

## Barium Oxide Merck.—Pure (2)

(Barium Monoxide; Barium Protoxide; Calcined Baryta).— $\text{BaO}$ .—Wh. to yellowish-wh. powd.;

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



forms barium hydroxide w. W.—*Sol.* W.; dil. acids.—*Uses:* Glass indust.—*Caut.* Poison! Keep well stoppered.

do. Merck.—Technical (1)

*Barium Oxide, Hydrated.*—see **Barium Dioxide, Hydrated**

**Barium Perchlorate Merck** (25)

$\text{Ba}(\text{ClO}_4)_2 + 4\text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.* W., A.

**Barium Permanganate Merck.**—Cryst. (40)

$\text{Ba}(\text{MnO}_4)_2$ .—Brownish-violet cryst.—*Sol.* W.—*Uses:* Prepar. other pure permanganates.

*Barium Peroxide.*—see **Barium Dioxide**

*Barium Peroxide, Hydrated.*—see **Barium Dioxide, Hydrated**

**Barium Phenolsulphonate Merck** (2)

(Barium Sulphophenylate, or Sulphocarbonate).— $\text{Ba}(\text{C}_6\text{H}_5\text{SO}_4)_2$ .—Colorl. cryst.—*Sol.* W.—Antisept.

**Barium Phosphate Merck.**—Pure (3)

$\text{BaHPO}_4$ .—Fine, wh. powd.—*Sol.*, v. sl. W.; more so in W. cont'g amm. salts; phosphoric & dil. nitric acids.

**Barium Phosphide Merck** (10)

$\text{BaP}_2$ .—Gray mass.; decomp. w. W.

**Barium Phosphite Merck.**—Precip., white (12)

$2\text{BaHPO}_3 + \text{H}_2\text{O}$ .—Soft, wh. powd.—*Sol.*, boil. W.

*Barium Platinochloride.*—see **Platinum & Barium Chloride**

*Barium Platinocyanide.*—see **Platinum & Barium Cyanide**

*Barium Platinosulphocyanide.*—see **Platinum & Barium Sulphocyanate**

**Barium Propionate Merck** (40)

$\text{Ba}(\text{C}_3\text{H}_5\text{O}_2)_2$ .—Wh. powd.—*Sol.* W.

*Barium Protoxide.*—see **Barium Oxide**

*Barium Rhodanide.*—see **Barium Sulphocyanate**

**Barium Saccharate Merck** (15)

Wh. powd., or scales.—*Sol.* W.

**Barium Salicylate Merck** (8)

$\text{Ba}(\text{C}_7\text{H}_5\text{O}_3)_2 + \text{H}_2\text{O}$ .—Wh., stellate, silky need.—*Sol.* W.

**Barium Selenate Merck** (150)

$\text{BaSeO}_4$ .—Heavy, wh. powd.—Decomp. in  $\text{HCl}$ .

*Barium Sozoiodolate.*—see **Soziodole-Barium**

**Barium Succinate Merck** (45)

$\text{BaC}_4\text{H}_4\text{O}_4$ .—Wh., cryst. powd.—*Sol.*, sl. W.; insol. A.

**Barium Sulphate Merck.**—Pure, precip. (1)

(Synthetic Barytes; Artificial Heavy Spar).—Heavy, wh. powd.—*Sol.*, ammonium-nitrate solut.; insol. W. & acids.—*Uses:* Chiefly techn.

under the designations "Blanc fixe," & "Permanent white," as a water-color pigment for colored paper, in wall-paper, as a size, &c.

**Barium Sulphide Merck.**—Pure (1)

(Barium Monosulphide).—By fusing caustic baryta w. sulphur.— $\text{BaS}$ .—Yellowish-green or greenish, amorph. powd. or friable lumps.—Alter.—*Uses:* Syph. & serof. affect.; depil. w. flour.—*Dose*  $\frac{1}{2}$ –1 grain (0.03–0.06 Gm.) in keratin-coated pills.—*Caut.* Keep well stoppered.

do. Merck.—Technical (1)

**Barium Sulphide Merck.**—Reagent (3)

Gray, hard, amorph. pieces; on contact w. dil.  $\text{HCl}$ ,  $\text{H}_2\text{S}$  evolved.—*Tests:* (As) grad. add 10 Gm. in quant. of 0.2–0.3 Gm. at a time to 100 Cc.  $\text{HNO}_3$  (sp. gr. 1.3) heated to 70–80° C. in a porcel. dish; when all added, boil, add 100 Cc. As-free dil.  $\text{H}_2\text{SO}_4$  (1:5), & evap. on sand-bath, till  $\text{H}_2\text{SO}_4$  vapors evolved, then mix res. w. 100 Cc.  $\text{H}_2\text{O}$ , & introduce, in sm. quant. at a time, into a Marsh appar., previously set in operat. w. 20 Gm. As-free, gran. Zn & dil. (1:5)  $\text{H}_2\text{SO}_4$ —no deposit of As in reduction tube within 2 hrs.—*Uses:* Partic. adapted for prep. As-free  $\text{H}_2\text{S}$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

do. Otto-Merck.—Reagent.—Cubes (3)

For generating arsenic-free  $\text{H}_2\text{S}$ .

do. Winkler-Merck.—Reagent.—Cubes (2)

For generating arsenic-free  $\text{H}_2\text{S}$ .

**Barium Sulphite Merck** (2)

$\text{BaSO}_3$ .—Wh. powd.—*Sol.*, warm  $\text{H}_2\text{SO}_4$ .

*Barium Sulphocarbonate.*—see **Barium Phenolsulphonate**

**Barium Sulphocyanate Merck.**—Pure (3)

(Barium Rhodanide; Barium Sulphocyanide).— $\text{Ba}(\text{SCN})_2$ .—Colorl. cryst.—*Sol.* W., A.—*Uses:* Dyeing, & fotogr.—*Caut.* Keep well stop'd.

do. Merck.—Technical (1)

*Barium Sulphocyanide.*—see **Barium Sulphocyanate**

*Barium Sulphophenylate.*—see **Barium Phenolsulphonate**

*Barium Sulphorinate.*—see **Barium Ethylsulphate**

**Barium Sulphydrate Merck** (12)

$\text{Ba}(\text{SH})_2$ .—Yellow cryst.—*Sol.* W.—*Caut.* Keep well stoppered.

**Barium Tannate Merck** (75)

Yellowish powd.—*Sol.* W.

**Barium Tartrate Merck.**—Pure (6)

$\text{BaC}_4\text{H}_4\text{O}_6$ .—Wh., granul. powd.—*Sol.* W.

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Barium Thiosulphate Merck** (3)  
Barium Hyposulphite. —  $\text{BaS}_2\text{O}_3 + \text{H}_2\text{O}$ .—Wh.,  
cryst. powd.—*Sol.* W.

**Barium Tungstate Merck.—Pure** (5)  
(Normal Barium Wolframate). —  $\text{BaWO}_4$ .—Wh.  
powd., or lustr., colorl. cryst.—*Uses*: Pigment,  
"Wolfram white."

*Barium Wolframate.*—see **Barium Tungstate**

**Barium & Potassium Chlorate Merck** (3)  
 $\text{Ba}(\text{ClO}_3)_2 + \text{KClO}_4$ .—Wh. cryst.—*Sol.* W.

*Barosma.*—see **Buchu**

**Barosmin (Eclectic)** (50)  
(Buchu Resin).—Fr. lvs. genus *Barosma*  
(*Buchu*).—Brown, arom. powd.; pung., bitter  
taste. —*Sol.* A. —Diuret.; Antisept.—*Uses*: Genito-  
urinary dis.—*Dose* 2–4 grains (0.12–0.25 Gm.).

**Barreswill's Reagent.**—For glucose  
Identical w. Fehling's reagent, but contains  
KOH instead of NaOH.

**Barutin**  
Double salt of theobromine-barium & sodium  
salicylate.—Wh., amorph. powd.; sweetish,  
alkaline taste; 1 Gm. = 0.17 Gm.  $\text{BaCl}_2$  & 0.25  
Gm. theobromine.—*Sol.*, abt. 20 W.—Diuret.—  
*Dose* 3 grains (0.2 Gm.) enut. & grad. incr. to 8  
grains (0.5 Gm.) in 1:80 solut.—*Caut.* Eas.  
affected by  $\text{CO}_2$ , hence keep well stop'd.

*Baryta, Calcined.*—see **Barium Oxide**

*Baryta, Caustic.*—see **Barium Hydroxide**

*Barytes, Synthetic.*—see **Barium Sulphate**

*Basil.*—see **Ocimum**

*Bauhinia Casalpinia.*—see **Jabuti Matumata**

*Bay.*—see **Laurus**

*Bayberry.*—see **Laurus**; **Myrica Cerifera**

**Bayecuru**  
(Buayecura; Guayecuru; Biacuru).—Root of  
*Static brasiliensis*, Boiss. Plumbagiaceae.—  
*Habit.*: South America (Brazil & Paraguay).  
—*Etymol.*: "Bayecuru" is the Brazilian name  
of the drug.—*Constit.*: Bayecurine (alkaloid);  
tannin; resin; volat. oils.—*Uses*: Astring. in  
glandular swellings.

**Baylahuen**  
(Mysterionica; Aplopappus; Haplopappus).—  
Lvs. & stems of *Haplopappus* (*Aplopappus*)  
*Baylahuen* Remy. Compositae.—*Habit.*: Chili.  
—*Etymol.*: "Baylahuen" is the Chilian name of  
drug.—*Constit.*: Tannin; resin; volat. & fixed  
oils.—Digest. Stim.; Intest. Astring.; Emmen.;  
resin is Cathart.; volat. oil acts on respir. organs  
like teredinthins.—*Uses*: Phthisis, diarrh.,  
chron. hemorrh. of bowels, chron. dysent., flat.  
dyspep. & catarrh.—*Doses*: 5–25  $\text{m}$  (0.3–1.6 Ce.)  
of 1:5 alcoh. tinct. w. mucil. vehicle in bronchial

& vesical catarrh; a 1:150 infus. or decoct. is used  
in diarrh. & acute & chron. dysent. in phthisis;  
small doses stimulate digestion.—*Fld. extr.*  
8–15  $\text{m}$  (0.5–1 Ce.). —*Appl.* in form of tinct.,  
to ulcers, wounds, &c. as stim. & protect.

*Bead Tree.*—see **Azedarach**

**Beale's Ammonia-Carmine**  
1 Gm. carmine, 5 Ce. amm., 110 Ce. W., 80 Ce.  
glycerin, & 30 Ce. absol. A.—*Uses*: Staining  
nerve & bone tissue.

*Beau's Foot.*—see **Polymnia**

*Beauwort.*—see **Meum**

**Bebeerine Merck.—Pure** (40)  
(Bebirine; Bibirine; supposed identical w.  
Buxine & Pelosino).—Fr. bark *Nectandra*  
*Rodiei*, Schomb., or *Paraiera brava*.— $\text{C}_{19}\text{H}_{21}\text{NO}_4$ .  
—Yellowish-brown, amorph. powd.; bitter;  
odorl.—*Sol.* 5 abs. A., 13 E., 6000 cold & 1800 hot  
W., dil. acids.—Antipyr. & Tonic, like quinine.  
—*Uses*: Intermit. fever.—*Doses*:  $\frac{1}{2}$ –3 grains  
(0.03–0.2 Gm.) 3 or 4 t. p. d., as a tonic; as a  
febrif., 3–15 grains (0.2–1 Gm.).

**Bebeerine Hydrochloride Merck** (29)  
 $\text{C}_{19}\text{H}_{21}\text{NO}_4 \cdot \text{HCl}$ .—Reddish-brown scales.—*Sol.*  
W.—Antipyr.; Tonic.—*Uses & Doses*: As of pre-  
ceding.

**Bebeerine Sulphate Merck** (29)  
 $(\text{C}_{19}\text{H}_{21}\text{NO}_4)_2 \cdot \text{H}_2\text{SO}_4$ .—Reddish-brown scales.—  
*Sol.* W.—Tonic; Febrifuge.—*Uses & Doses*: As  
of bebeerine.

*Bebirine.*—see **Bebeerine**

**Beccabunga**  
(Brooklime; Horse Well-grass).—Lvs. & tops of  
*Veronica beccabunga*, L. Scrophulariaceae.—  
*Habit.*: Europe; Asia; U. S.—*Etymol.*: "Becca-  
bunga," Latinized form of the German name  
"bachbunge," i.e., the plant grows in small  
streams & near water-courses. "Veronica" fr.  
Grk. "pherein," to bear, & "nike," victory; or  
Lat. "vera," true, & Grk. "eikon," image, i.e.,  
the flower was named for St. Veronica.—*Constit.*:  
Bitter prin.; tannin.—*Uses*: Antiserof.; Depur.;  
Aperient; Diuret.; Febrif.; Emmen.

**Bedeguar**  
(Fungus Rosarum; Fungus Cynosbati).—An  
excrecence produced by the puncture of  
*Cynips rose* on sweetbrier & other species of  
*Rose*.—*Habit.*: Germany.—Roundish or irreg.  
bodies abt. 1 in. diam., & made up of  
cavities each cont'g a larva; feebly astring.;  
alm. odorl.—*Constit.*: Tannin, & an acid sub-  
stance resembling cantharidin.—*Uses*: The  
alcoholic extract under the name "Tinctura  
*Fungorum Cynosbati*" was formerly employed  
by Rademacher in urinary diseases. Formerly  
regarded as anthelm., lithontriptic, & diuret.;  
a number of the fungi were formerly placed  
beneath the pillows of children in order to in-  
duce sleep.—*Dose* 10–40 grains (0.6–2.5 Gm.).

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Beeswax.*—see **Wax, White & Yellow**

**Behrens' Zinc Chloro-iodide.**—For cellulose

Aqu. solut. zinc chloride, potass. iodide, & iodine.

—*Uses:* In botanical microscopy for detecting cellulose.

**Beilschmidia**

(Queensland Sassafras).—Bark of *Beilschmidia obtusifolia*, Müll. (B. oppositifolia, Benth.). Laurineæ.—*Habit.*: New South Wales; Queensland.—*Etymol.*: Named for C. T. Beilschmied, apoth. & botanist at Schmiedeberg (i. Schl.); died 1845.—Bark resembles cassia & sassafras barks structurally; strly arom. odor; pleasantly astring. taste.—*Constit.*: Saffrol (2%) (?); Tannin (?).—*Uses:* Perfumery. Native Australians use the bark to flavor their tea. Employed also in diarrh. & dysent.

**Belladonna Leaves.**—U. S. P.

(Deadly Nightshade; Death's Herb; Banewort; Dwale; Poison Black Cherry).—Dried lvs. of *Atropa Belladonna*, L. Solanaceæ, & yielding not less than 0.3% mydriatic alkaloids by assay.—*Habit.*: Southern & Central Europe; Asia Minor; Algeria; cultiv. in N. America.—*Etymol.*: "Atropa," fr. Grk. "atropos," fr. "a," not, & "trepein," to turn, i.e., inflexible. One of the three Fates, in mythology, whose office it was to cut the thread of life. "Belladonna," fr. Italian "bella," handsome, & "donna," lady, i.e., the berries were used by the Italian ladies as a cosmetic, & to dilate the pupils of the eyes & render them more brilliant & handsome.—*Constit.*: Atropine; hyoscyamine; choline (bilineurin); asparagin; chrysotropic acid (scopoletin); succinic acid; chlorophyll; nitrates; belladonnine,  $C_{17}H_{15}NO_2$ ; atrosin (fluorescent red coloring matter); atropamine.—*Diuret.*; Nervine; Mydriatic; Nareotic; Sedat.; Antispasmodic; Anodyne.—*Uses:* Pain, asthma, nervous cough, incont. urine, night sweats; antid. to morphine or opium.—*Extern.*, rigid os uteri, neuralg., rheumat., &c.—*Techn.*, for manuf. atropine & hyoscyamine.—*Doses:*  $\frac{1}{2}$ -2 grains (0.03-0.12 Gm.).—*Alcoh. extr.*,  $\frac{1}{6}$ - $\frac{1}{2}$  grain (0.01-0.03 Gm.); *Max. D.* 1 grain (0.06 Gm.) single, 3 grains (0.2 Gm.) daily; *Extern.*, in rheumat. neuralg., &c., in 1:5-10 oint.; in tenesmus,  $\frac{1}{3}$ -1 grain (0.02-0.06 Gm.) in suppository; as enema,  $\frac{1}{2}$ -1 grain (0.02-0.06 Gm.) in abt. 3  $\frac{1}{3}$  fl. oz. (100 Cc.) water.—*Aqu. extr.*,  $\frac{1}{4}$ -1 grain (0.015-0.06 Gm.).—*Fld. extr.*, 1-3  $\mathfrak{m}$  (0.06-0.2 Cc.).—*Tinct.*, 8-30  $\mathfrak{m}$  (0.5-2 Cc.).—*Antid.*, emetics; stimulants; morphine; pilocarpine; physostigmine; tannin.—*Caut.* Poison!

**Belladonna Juice Merck**

(2

Fr. fresh lvs. of *Atropa Belladonna*, L., preserv. w. alc.—Sherry-colored liq.; about three times strength of 1:20 tincture.—*Uses:* Asthma, cough, spasms, incont. of urine, opium poison., irrit. bladder, nervousn., &c.—*Dose* 3-10  $\mathfrak{m}$  (0.2-0.6 Cc.).—*Antid.*, emetics, stomach siphon,

tannin, animal charcoal, opium, pilocarpine hypoderm., artif. respiration.—*Caut.* Poison! Keep cool.

**Belladonna Root.**—U. S. P.

Dried root of *Atropa Belladonna*, L. Solanaceæ, & yielding not less than 0.45% mydriatic alkaloids by assay.—*Habit.* & *Etymol.*, see *Belladonna Leaves*.—*Constit.*: Atropine; chrysotropic acid, leucotropic acid; hyoscyamine; hyoscine (scopolamine); atrosin (fluorescent red coloring matter).—*Uses:* Nareot.; Mydriatic; Sedat.; Antispasmodic; Anod.—*Doses:*  $\frac{1}{2}$ -2 grains (0.03-0.12 Gm.).—*Max. D.* 2  $\frac{1}{2}$  grains (0.15 Gm.) single, & 8 grains (0.5 Gm.) daily.—*Alcoh. extr.*,  $\frac{1}{12}$ - $\frac{1}{4}$  grain (0.005-0.015 Gm.).—*Fld. extr.*, 1-2  $\mathfrak{m}$  (0.06-0.12 Cc.); *Max. D.* 3  $\mathfrak{m}$  (0.2 Cc.) single, 10  $\mathfrak{m}$  (0.6 Cc.) daily.—*Antid.*, same as for belladonna leaves.—*Caut.* Powerful poison!

**Belladonnine Merck**

(500

Fr. mother-liquor of atropine cryst.— $C_{17}H_{15}NO_2$  (Merling).—Amorph., brown, varnish-like mass.—*Sol.* C.; sl. in W.—*Mydr.*

**Bellis**

(Garden Daisy; Daisy).—Flowers of *Bellis perennis*, L. Composite.—*Habit.*: Europe; Asia; U. S.—*Etymol.*: Fr. Lat. "bellus," pretty; & "perennis," perennial.—*Constit.*: Volat. & fixed oils; bitter extractive; tannin.—*Uses:* As pectoral tea.—*Extern.*, as vulnerary.

**Benzacetin**

(Acetamidomethylsalicylic Acid).— $C_6H_5(OC_2H_5)(NH.COCH_3)COOH$ .—Wh. cryst.—*Sol.* A.; sl. sol. W.—*Melt.* 205° C.—Antineural.; Sedat.; Anod.—*Dose* 8-15 grains (0.5-1 Gm.).

**Benzal Chloride.**—see **Benzyl Dichloride**

**Benzal Green.**—see **Malachite Green**

**Benzalacetone.**—see **Benzylideneacetone**

**Benzaldehyde Merck.**—Highest Purity, free from Chlorine 16

(Benzoic Aldehyde; Artificial Essential Oil of Almond; Benzoyl Hydride).—Fr. benzyl chloride, by W. & lead nitrate.— $(C_6H_5)_2$ , or,  $C_6H_5.CO.H$ .—Colorl., frag., volat. oil, free fr. chlorine & hydrocy. acid; hydrocyanic-acid-like odor.—*Sp. Gr.* 1.0504 at 15° C.—*Boil.* 180° C.—Not poisonous.—*Uses:* Flavors, & techn. in manuf. of dyes.

do. Merck.—Pure

(2

*Uses:* As of preceding.

**Benzaldehyde Green.**—see **Malachite Green**

**Benzamide Merck**

(25

Fr. benzoyl chloride, by solid amm. carbonate— $C_6H_5.ON$ , or,  $C_6H_5.CONH_2$ .—Colorl., transp. monoc. tablets.—*Sol.* A, E, ammonia; sl. in W.—*Melt.* 128° C.—*Boil.* 286-290° C.

**Benzanalgen.**—see **Analgen**

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles



**Benzanilide Merck** (20)

(Benzoylanilide; Phenylbenzanilide).—Fr. benzene anhydride & aniline w. caustic soda.— $C_{14}H_{11}NO$ , or,  $C_6H_5NH(CO C_6H_5)$ .—Wh. to reddish-wh. cryst. *Sol.* 58 cold & 7 hot A.; sl. in E.; alm. insol. W.—*Melt.* 160–162° C.—Antipyr., especially for children.—*Uses:* Zymotic dis.—*Doses:* Children,  $\frac{1}{2}$ –6 grains (0.1–0.36 Gm.), acc. to age, several t. p. d.; Adults, 10–15 grains (0.6–1 Gm.).—*Max. Adult D.*, 45 grains (3 Gm.) p. day.

**Benzene Merck.**—From Benzoic Acid (20)  
Fr. benzoic acid, by lime or vapor over red-hot iron.— $C_6H_6$ .

**do. Merck.**—From Coal Tar.—Highest Purity, crystallizable, free fr. Thiophene (1)

(Phenyl Hydride; Benzol; Coal Naphtha).—Fr. coal tar.— $C_6H_6$ .—Colorl., mobile, h'ly refract. liq.; below 6° C., colorl., trimet., pyramidal cryst.—*Sp. Gr.* 0.883–0.885 at 15° C.—*Sol.* A., E., acetone, C., glac. acetic acid, oils.—*Melt.* 6° C.—*Boil.* 80–81° C.—Antispasm. & Anticatarrh.—*Uses:* Whoop-cough, influenza, &c.—*Techn.*, in manuf. dyes, assolvent, in electro-techn., fotogr., rubber manuf., &c.—*Dose* 2–10  $\frac{1}{2}$  (0.12–0.6 Gm.) every 3 hrs. in emulsion, or on sugar or in caps.—*Max. D.* 45  $\frac{1}{2}$  (3 Gm.) single; 180  $\frac{1}{2}$  (12 Gm.) daily.

**Benzene Merck.**—Reagent (3)

(Benzol).— $C_6H_6$ .—Clear, colorl. liq.; charact. odor.—*Sol.*, eas. A., E.; insol. W.—*Solidif.* at 0° C. to rhomb. cryst. scales melt. at 4° C.—*Sp. Gr.* 0.883.—*Boil.* 80.5° C.—*Tests:* (Thiophene) shake 50 Cc. + 20 Cc. conc.  $H_2SO_4$ —acid should remain colorl.; add a cryst. of isatin, shake, let stand for 1 hr.—acid must not exhibit a green or blue color.—( $CS_2$ ) mix 50 Cc. + 50 Gm. alc. solut. KOH (11 Gm. KOH in 90 Gm. absol. A.), let stand sev. hrs. at abt. 20° C., shake w. abt. 100 Cc.  $H_2O$ , remove aqu. layer, neutralize latter w.  $C_6H_5O_2$ , & add solut.  $CuSO_4$ —no ppt.—*Uses:* Solvent of fats, alkaloids, resins; forensic analysis, &c.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Benzene Alphahexachloride.**—see **Benzene Hexachloride**

**Benzene Dibromo- (Para-) Merck** (25)

(Paradibromobenzene [or, -ol]).—Fr. benzene, by excess of bromine.— $C_6H_4Br_2$ .—Colorl. cryst.—*Melt.* 89° C.—*Boil.* 219° C.

**Benzene Dichloro- (Para-) Merck** (35)

(Paradichlorobenzene [or, -ol]).—Fr. benzene, by chlorine.— $C_6H_4Cl_2$ .—Colorl. cryst.; pleas. odor.—*Sol.* A., E., B.—*Melt.* 56° C.—*Boil.* 173.2° C.

**Benzene Hexachloride Merck** (100)

(Benzene Alphahexachloride—not a substitution, but an addition, product).—Fr. benzene, by chlorine, in sunlight or w. heat.— $C_6H_6Cl_6$ .—Colorl., monocl. cryst.—*Melt.* 157° C.—*Boil.* 288° C.—*Sol.* B., C.

**Benzene Iodo- Merck** (50)

(Monoiodobenzene [or, -ol]).—Fr. benzene, by iodine chloride w. aluminum chloride.— $C_6H_5I$ .—Colorl., transp. liq.—*Sp. Gr.* 1.833 at 15° C.—*Sol.* A.—*Boil.* 187–188° C.—*Caut.* Keep dark.

**Benzene Monobromo- Merck** (10)

(Monobromobenzol).—Fr. benzene by bromine w. iodine.— $C_6H_5Br$ .—Clear, colorl. liq.—*Sp. Gr.* 1.5 at 15° C.—*Sol.* A., B.—*Boil.* 154–155° C.—Recommended in albuminuria.

**Benzene Monochloro- Merck** (6)

(Monochlorobenzene [or, -ol]; "Phenyl Chloride").—Fr. benzene, by chlorine.— $C_6H_5Cl$ .—Clear, colorl. liq.; sweet odor.—*Sp. Gr.* 1.110 at 15° C.—*Boil.* 132° C.

**Benzene Perchloro- Merck** (80)

(Hexachlorobenzene [or, -ol]; Julin's Carbon Chloride).— $C_6Cl_6$ .—Wh. need.—*Sol.*, boil. A., B.; v. sl. E.—*Melt.* 226° C.—*Boil.* 326° C.

**Benzene Sulphochloride Merck** (60)

(Benzol Sulphochloride).—Fr. aqu. solut. of benzenesulphonic acid, by chlorine.— $C_6H_5SO_2Cl$ .—Oily liq.; slowly solidif. at 0° C. to cryst.—*Sol.* A., E.—*Boil.* 247° C.

**Benzene Tribromo- Merck** (50)

(Symmetrical Tribromobenzene [or, -ol]).— $C_6H_3Br_3$  [1:3:5].—Colorl. need.—*Sol.*, hot A., B.—*Melt.* 120° C.—*Boil.* 275–278° C.

**Benzene Trichloro-** (200)

(Asymmetrical Trichlorobenzene [or, -ol]).— $C_6H_3Cl_3$  [1:2:4].—Transp. colorl., rhombic cryst.—*Melt.* 16° C.—*Boil.* 213° C.

**Benzeneazobenzene.**—see **Azobenzene**

**Benzenyl Trichloride.**—see **Benzotrichloride**

**Benzenylaminothiophenol Merck** (110)

$C_{12}H_9NS$ , or,  $C_6H_5C:N.C_6H_4S$ .—Yellow need.; pleas. odor of tea roses and geranium.—*Melt.* 115° C.—*Boil.* 360° C.—*Sol.* A., E., carbon disulphide, dil. HCl.—*Uses:* Perfumery.

**Benzidine Merck.**—Highest Purity (30)

(Paradiaminodiphenyl).—Fr. azobenzene, by reduct.— $C_{12}H_{12}N_2$ , or,  $NH_2.C_6H_4.C_6H_4.NH_2$ .—Grayish-yellow, cryst. powd.—*Sol.*, boil. W., A., E.—*Melt.* 122° C.

**do. Merck.**—Base (3)

**Benzidine Merck.**—Reagent (40)

(Paradiaminodiphenyl).— $(C_6H_4)_2(NH_2)_2$ .—Grayish-yellow, cryst. powd.—*Sol.*, diffie. cold W.; more read. boil. W., & in A., & E.—*Melt.*

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



122° C.—*Tests*: ( $H_2SO_4$ ) mix 5 Gm. + 5 anhydr.  $Na_2CO_3$  + 2 Gm.  $KNO_3$ , & caut'y incin. in platin. crucib.; when cold, diss. melt in 50 Cc.  $H_2O$ , filter, add to filtrate 20 Cc. HCl (sp. gr. 1.124), boil, & add solut.  $BaCl_2$ —no ppt. ( $BaSO_4$ ) within 12 hrs.—*Uses*: Determ. sulphates, partic. in water analysis.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Benzidine Sulphate Merck.**—Highest Purity (20 (Paradiaminodiphenyl Sulphate).— $C_{12}H_{12}N_2 \cdot H_2SO_4$ .—Wh., cryst. powd.—*Sol.* A.

do. Merck (5

**Benzile Merck** (35  
(Benzil; Dibenzoyl).—Fr. benzoin, by oxid. w. nitric acid.— $C_{14}H_{10}O_2$ , or,  $C_6H_5(CO)_2C_6H_5$ .—Yellow need.—*Sol.* E., hot A.—*Melt.* 90–92° C.—*Boil.* 340–348° C.

**Benzin Merck.**—Fr. Petroleum (1  
(Petroleum Ether; Naphtha; Petroleum Naphtha).—Fr. petroleum distill'n.—Light, transp., colorl., volat. liq.; princip. hydrocarbons of marsh gas series & homol. comp.; colorl., v. volat. liq.—*Sol.* E., oils, C., carbon disulphide.—Sp. Gr. 0.64–0.67 at 15° C.; (0.638–0.660 at 25° C.—U. S. P.).—*Boil.* 50–75° C. (45–60° C.—U. S. P.).—Counter-irrit. & Parasiticide.—*Uses*: Chiefly in domestic practice (bronch. troubles, worms, itch, &c.).—*Techn.*, solvent; detergent; insecticide; also in photography & dental techn.—*Dose* 5–15  $\mathfrak{m}$  (0.3–1 Cc.) in mucilage or caps.—*Max.* D. 75  $\mathfrak{m}$  (5 Cc.) daily.—*Appl.*, in rheumat.; mixt. of 4 vol. benzin w. 1 vol. ether as loc. anesth.—*Antid.*, excitants; stimulants; stomach siphon.—*Caut.* Highly inflammable!

do. Merck.—*Boil.* abt. 40° C. (1  
For fat determinations.

do.—Purified.—U. S. P.

Petroleum benzin purified by treatment w. potass. permangan, NaOH,  $H_2SO_4$ , & water.

**Benzin Merck.**—Reagent (2  
(Petroleum Ether or Benzin).—Colorl., inflamm. liq.; strong, not unpleas. odor.—Sp. Gr. 0.640–0.670.—Distils bet. 40–75° C.; does not solidify at 0° C.—*Tests*: (*Non-volat. Impur.*; *Heavy Oils*) warm 20 Gm. on W.-bath—no res. Drop on paper & evap.—no fatty spot.—(*Sulphur Compounds*; *Reducing Substcs*) 1 Cc. + 5 Cc. solut.  $AgNO_3$  in alcoholic ammonia, & immerse mixt. in  $H_2O$  at 50° C.—no brown color.—*Uses*: Solvent for fats, alkaloids, resins; forensic analysis, &c.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## Benzoazurine G

(Sodium Dianisidindisazobi-1-naphthol-4-sulphonate).—Bluish-black powd.—*Sol.* W.—*Uses*: Dyeing cotton blue in soap bath.

**Benzocoloin.**—see **Hydrocotoïn**

**Benzoegenol Merck** (12  
(Benzoyleugenol; Eugenol Benzoate).—Fr. eugenol benzoyl chloride.— $C_{17}H_{16}O_2$ , or,  $C_9H_8(OCH_3)O.C_6H_5.CO$ .—Wh. cryst.—*Sol.* A., E., C., acetone.—*Melt.* 68–70° C.—*Uses*: Tuberculosis; neuralg. headaches.—*Dose* 8–15 grains (0.5–1 Gm.).

**Benzoic Aldehyde.**—see **Benzaldehyde**

**Benzoic Trichloride.**—see **Benzotrichloride**

**Benzoïn Merck.**—(*Not Gum Benzoïn*).—Cryst. (30  
(Phenylbenzoylcarbinol; Bitter-Almond-Oil Camphor; Oxyphenylbenzylketone).—React.-prod. benzoic aldehyde (200) potass. cyanide (20) & 50% alc. (800).— $C_{14}H_{12}O_2$ , or,  $C_6H_5 \cdot CH(OH).CO.C_6H_5$ .—Colorl. cryst.—*Sol.*, hot W. & A.—*Melt.* 135–137° C.—*Antisep.*—*Uses*: *Extern.*, ule. & varic. veins.—*Appl.* 20% oint.

## Benzoïn.—Penang

(Sumatra-Penang Benzoïn; "Sumatra" Benzoïn).—Balsamic resin fr. *Styrax subidenticulata*, Miq. *Styracace*.—*Habit.*: Sumatra & Java.—*Etymol.*: See Benzoïn, Siam.—Grayish-brown porous masses; many white imbedded tears; storax-like odor.—*Sol.*, partly in  $CS_2$ ; alm. compl. in A.—*Constit.*: Cinnamic & a little (or not) benzoic acid; resin.—*Uses*, *Dose* & *Incomp.*, as of Benzoïn, Siam.

## Benzoïn.—Siam.—U. S. P.

(Gum Benzoïn; Gum Benjamin; Resin Benzoïn).—Balsamic resin fr. *Styrax Benzoïn*, Dryander. *Styracace*; & other unidentified sp. of S.—*Habit.*: Siam; Cambodia, & Cochin China (also fr. Sumatra & Java).—*Etymol.*: Fr. Hebrew "ben," branch, & "zoa," secretion; or, fr. Arab. "huban, jawa" (lu + han = join), "incense of Java."—Grk. "styrax," fr. Arab. "assthirak," a tree yielding gum.—Almond-shaped tears, pale reddish-brown extern.; waxy & white intern.; or, as reddish-brown mass of tears imbedded in a reddish resin; agre. vanilla-like odor, bitter taste.—*Sol.*, alm. whol. in  $CS_2$ , & 5 warm A.—Sp. Gr. 1.17–1.235.—*Melt.*, tears, 75° C.—*Constit.*: Ethereal oil; benzoic acid; vanillin; resin (a mixt. of benzoeresinol,  $C_{11}H_{12}O_2$ , & siarresinotannol,  $C_{12}H_{14}O_2$ ) esterified w. benzoic acid.—Expector., Stim., Antisep.—*Uses*: *Intern.*, in chron. catarrh & as expector. constit. of cough mixt.; also as tinct. w. hot W. for inhalations.—*Extern.*, as dress. for wounds (in form of tinct.).—*Techn.*, preserv. oints.; prep. benzoic acid; cosmetics; fumig. pastilles; stove lacquer; varnishes; perfumery; chocolate coating.—*Doses*: 5–30 grains (0.3–2 Gm.).—Tinct., 10–40  $\mathfrak{m}$  (0.6–2.6 Cc.).—Comp. tinct.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



(benzoin, aloes, storax, & bals. Tolu), 15-60 m (1-4 Ce.) as stim. expector.—*Incomp.*, acids, alkalis, water.

**Benzoin.**—Sumatra.—*U. S. P.*

—Balsamic resin fr. *Styrax Benzoin*, Dryander, *Styracae*.—*Habit.*: Sumatra & Java.—*Etymol.*: See Benzoin, Siam.—Cubical blocks consisting of whitish-yellow tears imbedded in a grayish-brown resin; odor unlike that of Siam & less agree.—*Melt.*, tears, at 85° C., the mass at 95° C.—*Sol.*, partly in CS<sub>2</sub>; alm. compl in A.—*Constit.*: Benzoic & cinnamic acids; vanillin; resin (benzoresinol, C<sub>16</sub>H<sub>12</sub>O<sub>2</sub>, & benzoresinotannol, C<sub>18</sub>H<sub>20</sub>O<sub>4</sub>, esterified w. cinnamic acid); styrol; styracin, benzaldehyde.—*Uses*, *Dose*, & *Incomp.*, as of Benzoin, Siam.

**Benzoiodyhydrin Merck**

(1000

(Chloriodobenzoic-acid Glycerin Ester).—C<sub>3</sub>H<sub>5</sub>-CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>O<sub>2</sub>.—Brownish-yellow, fatty mass.—*Sol.*, A., E., petrol. ether.

**Benzoiodyhydrin Saccharated Merck**

(60

Mixt. of benzoiododyhydrin (abt. 32.5%) & sugar.—*Uses*: As succedaneum for iodides.—*Dose* 1-4 teaspoonfuls daily.

*Benzol.*—see **Benzene**

*Benzolazoaniline.*—see **Diazoamidobenzene**

*Benzonaphthol.*—see **Betanaphthol Benzoate**

**Benzonitrile Merck**

(60

(Phenyl Cyanide).—Fr. benzoic acid, by lead sulphocyanate.—C<sub>6</sub>H<sub>5</sub>N, or, C<sub>6</sub>H<sub>5</sub>.CN.—Transp., colorl. oil; odor essent. oil almonds.—Sp. Gr. 1.023 at 0° C.—*Misc.*, all prop., A., E.—*Boil.*, 190° C.

**Benzophenone Merck**

(50

(Diphenylketone).—Fr. calc. benzoate by dry distil'n.—C<sub>13</sub>H<sub>10</sub>O, or, C<sub>6</sub>H<sub>5</sub>.CO.C<sub>6</sub>H<sub>5</sub>.—Colorl. prisms.—*Sol.*, A., E.—*Melt.*, 48° C.—*Boil.*, 306° C.

**Benzopurpurine Merck**

(10

(Eclipse; Fast Scarlet; Ozamin 4 B.).—Sodium salt of orthotoluidindisazobinaphthylaminesulphonic acid.—Brown or red powd.—*Sol.*, W.—*Uses*: Dyeing cotton.

**Benzopurpurine Paper**

Wh. paper charged w. an acidulated solut. Benzopurpurine B, and dried.—*Uses*: Indicator for amm. & o. alkalies (brownish-red color), & acids (bluish-black color).

*Benzoquinone.*—see **Quinone**

**Benzosalin**

(Benzoylsalicylic-acid Methyl Ester).—C<sub>6</sub>H<sub>5</sub>OC-O.C<sub>6</sub>H<sub>4</sub>COOCH<sub>3</sub>.—Wh., acie. cryst.—*Sol.*, A., B., C.; more diffic. E.; insol. W.—*Melt.*, 85° C.—*Intest.* Antiseptic & Disinf.—*Uses*: Artic. rheum., neuralg., &c.—*Dose* 8-15 grains (0.5-1 Gm.) 3-4 t. p. d.

**Benzosol**

(25

(Guniacol Benzoate; Benzoylguniacol).—Fr. guniacol, w. benzoyl chloride or anhydride.—C<sub>14</sub>H<sub>12</sub>O<sub>3</sub>, or, C<sub>6</sub>H<sub>5</sub>(OCH<sub>2</sub>O.C<sub>6</sub>H<sub>5</sub>.CO.—Colorl., cryst. powd.; odorl.; alm. tastel.—*Sol.*, A., E., C.; insol. W.—*Melt.*, 56-58° C.—Antituberc., & Intest. Antisep.—*Uses*: Phth., intest. disord., &c.—*Dose* 3-12 grains (0.2-0.8 Gm.) sev. t. p. d. in pill, powd., choc. pastil., or w. peppermint-oil sugar.—*Mar. D.* 40 grains (2.6 Gm.) p. d.

**Benzosulphinide.**—*U. S. P.*

(4

(Benzoylsulphonic Imide; Saccharin; Garantose; Glusidum; Gluside; Glycophenol; Glycosine; Saccharinol; Saccharinose; Saccharol; Saxin; Sykose; Zuckerin; Glusimide; Agucarina; Toluoluss; Anhydroorthosulphamidbenzoic Acid; Neo-saccharin).—Fr. toluene or fr. thiosalicylic acid.—C<sub>6</sub>H<sub>5</sub>NO<sub>2</sub>S, or, C<sub>6</sub>H<sub>5</sub>(CO).SO<sub>2</sub>NH.—Wh., odorl., microcryst. powd.; intens. sweet. taste: 500-550 times as sweet as cane sugar; sweet taste still detected in 1:70,000 solut.—*Sol.*, 250 W., 25 A. at 25° C.; 24 W. at 100° C.—Alkal. carbonates increase solub. in W.—*Melt.*, abt. 220° C.—*Uses*: Cystitis; sweeten food of diabetics & obese subjects, cover taste of bitter & acrid remed., &c.; also as sweetener in household economy, in manuf. champagne, sweetening oils & essences.—*Dose* 2-5 grains (0.12-0.3 Gm.) several times per day in solution with sodium bicarbonate.

**Benzotrichloride Merck.—Technical**

(5

(Toluene, Benzenyl, or Benzoic, Trichloride; Phenyl Chloroform).—Fr. boil. toluene, by chlorine.—C<sub>6</sub>H<sub>5</sub>Cl<sub>3</sub>, or, C<sub>6</sub>H<sub>5</sub>.CCl<sub>3</sub>.—Colorl. to yellowish liq., character. penetrat. odor.—Sp. Gr. 1.38 at 15° C.—*Boil.*, 213-214° C.—*Uses*: Aniline dye industry.

**Benzoyl Chloride Merck.—Highest Purity, free fr. Chlorobenzoyl Chloride**

(10

Fr. benzoic acid, by phosph. pentachloride.—C<sub>6</sub>H<sub>5</sub>OCl, or, C<sub>6</sub>H<sub>5</sub>.CO.Cl.—Transp., colorl., pung. liq.; vapor causes tears.—Sp. Gr. 1.21 at 19° C.—*Sol.*, E., carb. disulph.—*Boil.*, 194-195° C.—*Uses*: Reagent in org. anal. & syntheses.

do. Merck.—Pure

(5

*Benzoyl Green.*—see **Malachite Green**

*Benzoyl Hydride.*—see **Benzaldehyde**

*Benzoyl Oxide.*—see **(Acid) Benzoic Anhydride**

*Benzoylacetyl Peroxide.*—see **Acetozone**

*Benzoylanilide.*—see **Benzanilide**

**Benzoyllecgonine Merck**

(300

By-prod. of cocaine.—C<sub>16</sub>H<sub>19</sub>NO<sub>4</sub> + 4H<sub>2</sub>O.—Colorl. cryst.—*Melt.*, 90-92° C. when cont. W. of cryst., & 188-190° C. when anhydrous.

*Benzoyllecgonine-ethylester.*—see **Coca-ethylester**

*Benzoyllecgonol.*—see **Benzoeugenol**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Benzoylglycin.* } —see **Acid Hippuric**  
*Benzoylglycocol.* }

*Benzoylguaiacol.* —see **Benzosoi**

*Benzoylmethide.* —see **Hypnone**

*Benzoylnaphthol.* —see **Betanaphthol Benzoate**

**Benzoylphenylhydrazine Merck** (60)  
 (Symmetric Benzoylphenylhydrazine). — Fr. phenylhydrazine w. benzoyl chloride, or benzoic acid. —  $C_{13}H_{12}N_2O$ , or,  $(C_6H_5)HN.NH.C_6H_5.CO$ . — Colorl. cryst. — *Sol.* A., E., C. — *Melt.* 145° C. — Antisept.

*Benzoylphloroglucinoldimethylester.* —see **Hydrocotoin**

*Benzoylpseudotropine Hydrochloride.* —see **Tropacocaine Hydrochloride**

*Benzoylsalicin.* —see **Populin**

*Benzoylsalicylic-acid Methyl Ester.* —see **Benzo-salin**

*Benzoylsulphonic Imide.* —see **Benzosulphinide; Saccharin**

*Benzoyltetramethyldiaminorthylisopropylalcohol Hydrochloride.* —see **Alypin**

*Benzoyltriethylacetanilamide Hydrochloride.* —see **Eucaine, Beta-**

*Benzozone.* —see **Acetozone**

*Benzyl Alcohol.* —see **Alcohol, Benzyl**

*Benzyl Benzene.* —see **Diphenylmethane**

*Benzyl Bichloride.* —see **Benzyl Dichloride**

**Benzyl Chloride Merck.** —Pure (4)  
 (Ome-gachlorotoluene). — Fr. boil. toluene, by chlorine. —  $C_6H_5Cl$ , or  $C_6H_5CH_2Cl$ . — Colorl. liq.; arom. odor. — *Sp. Gr.* 1.107 at 15° C. — *Boil.* 178° C. — *Uses:* Chem., & techn. in manuf. artif. bitter oil almond, & dyes. — *Caut.* Highly irrit. to eyes & air passages.

do. Merck. — Technical (3)

**Benzyl Cyanide Merck** (25)  
 (Phenylacetic-acid Nitrile). — Naturally, in garden cress & o. plants. Synth., fr. benzyl chloride, w. potass. cyanide. —  $C_6H_5N$ , or  $C_6H_5CH_2CN$ . — Liquid. — *Sp. Gr.* 1.0146 at 18° C. — *Sol.* A. — *Boil.* 232° C.

**Benzyl Dichloride Merck** (2)  
 (Benzylidene Chloride; Benzal, or Benzylene, Chloride; Chlorobenzal). — Fr. toluene by phosph. pentachloride w. heat. —  $C_6H_5Cl_2$ , or  $C_6H_5CHCl_2$ . — Oily liq.; faint arom. odor. — *Sp. Gr.* 1.27 at 0° C. — *Sol.* A., E. — *Boil.* 204° C.

**Benzyl Iodide.** —Pure (100)  
 Fr. benzyl chloride, by hydriodic acid. —  $C_6H_5I$ , or  $C_6H_5CH_2I$ . — Colorl. cryst.; vapor causes tears. — *Sol.* E., carbon disulphide; sl. in A. — *Melt.* 241° C.

**Benzyl Sulphide Merck** (25)  
 Fr. benzyl chloride, w. potassium sulphide. —  $C_{11}H_{11}S$ , or,  $(CH_2.C_6H_5)_2S$ . — Colorl. tablets. — *Sol.* E. — *Melt.* 49° C.

**Benzylamine Merck** (200)  
 Fr. thiobenzamide, by reduct. w. nascent hydrogen. —  $C_6H_5N$ , or,  $C_6H_5CH_2NH_2$ . — Colorl. liq.; strly alkaline react. — *Sp. Gr.* 0.99 at 15° C. — *Sol.*, all prop., W., A., E. — *Boil.* 184° C.

**Benzylamine Hydrochloride Merck** (190)  
 $C_6H_5N.HCl$ , or,  $C_6H_5CH_2NH_2.HCl$ . — Colorl. cryst. — *Sol.* W.

**Benzylaniline Merck** (30)  
 (Benzylphenylamine). — Fr. thiobenzanilide by reduct. —  $C_{13}H_{13}N$ , or,  $C_6H_5CH_2NH(C_6H_5)$ . — Alum. colorl. prisms. — *Sol.* A. — *Melt.* 33° C.

**Benzylcarbamide Merck** (350)  
 (Benzylurea). — Fr. benzyl chloride, by potass. cyanate in alc. —  $C_6H_{10}N_2O$ , or,  $NH_2.CO.NH.CH_2.C_6H_5$ . — Colorl. cryst. — *Sol.* W., A. — *Melt.* 147° C.

*Benzylene Chloride.* —see **Benzyl Dichloride**

**Benzylethylaniline Merck** (35)  
 Fr. ethylaniline, w. benzyl chloride. —  $C_{15}H_{17}N$ , or,  $C_6H_5N(C_6H_5).C_6H_5CH_2$ . — Brownish-yellow liq. — *Boil.*, abt. 286° C., w. sl't decompos. — *Sol.* A., E., C.

*Benzylidene Chloride.* —see **Benzyl Dichloride**

**Benzylideneacetone Merck** (50)  
 (Benzalacetone; Acetocinnamone; Methylcinnamylketone; Methylstyrylketone). — Fr. mixt. calc. cinnamate & acetate by heat. —  $C_{10}H_{10}O$ , or,  $C_6H_5CH:CH.CO.CH_3$ . — Colorl. cryst.; odor of cumarin. — *Sol.* A., E., B., C.; sl. in petroleum benzin. — *Melt.* 42° C.

*Benzylmorphine Hydrochloride.* —see **Peronin**

*Benzylphenylamine.* —see **Benzylaniline**

*Benzylurea.* —see **Benzylcarbamide**

**Berberine Carbonate Merck.** —Cryst. (100)  
 Yellow cryst. — *Sol.*, hot W., A. — *Uses, Doses, &c.*: As of berberine hydrochloride.

**Berberine Citrate**  
 Yellowish, cryst. powd.; bitter. — *Sol.* W.

**Berberine Hydrochloride Merck** (29)  
 $C_2H_7NO_4Cl + 2H_2O$ . — Yellow powd. — *Sol.* W. — Antiper.; Stoma.; Tonic. — *Uses:* Specially in splenic enlargement, due to malarial origin, in combin. w. quinine sulph. (berberine hydrochl. 2 parts, & quin. sulph. 1 part), amenor., anorexia, chronic intestinal catarrh, vomiting of pregnancy, &c. — *Doses:* Antiper., 8-15 grains (0.5-1 Gm.); stoma. & ton.,  $\frac{1}{2}$ -1 grain (0.03-0.06 Gm.) 3 t. p. d.; of mixt. w. quinine, 7 grains (0.4 Gm.) every  $\frac{1}{2}$ -1 hr.

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Berberine Phosphate**

( $C_{20}H_{17}NO_4 \cdot H_2PO_4 + 5H_2O$ ).—Yellow, cryst. powd.—*Sol.* W.—Most sol. salt & easiest to administer, in pills, hydro-alcoh. solut., or arom. syrup. —*Dos.* As of sulphate; best given in solut. flavored w. syrup, orange or syrup cinnamon.

**Berberine Sulphate Merck.**—Cryst. (29

Orange-yellow need.—*Sol.*, diffie. W.; almost insol. A.

do. Merck.—Cryst., soluble (150

$C_{20}H_{17}NO_4 \cdot H_2SO_4$ .—Sulphate of colored alkaloid fr. *Berberis vulgaris* L. & o. plants.—Yellow need.—*Sol.* W., A.—Antiper., Stomachic; Tonic. —*Uses:* Malar., amenorr., splenic congest., anorexia, chron. catarrh. —*Doses:* Antiper., 8-15 grains (0.5-1 Gm.); stom. & ton.,  $\frac{1}{2}$ -1 grain (0.03-0.06 Gm.) 3 t. p. d.

**Berberis Aquifolium**

(Holly-leaved Barberry; Oregon Grape Root; Mountain Grape).—Root of *Berberis aquifolium*, Pursh. (*Mahonia aquifolium*, Nutt.). Berberideae. —*Habit.*: U. S., & British Columbia. —*Etymol.*: Fr. "Berberys," the Arabic name for the fruit. —*Constit.*: Berberine,  $C_{20}H_{17}NO_4$ ; berbamine,  $C_{15}H_{19}NO + 2H_2O$ ; oxyacanthine,  $C_{19}H_{21}NO_3$  (Rudel); phytosterin,  $C_{27}H_{45}O \cdot H_2O$ ; gum; sugar—Alterat.; Antiper.; Tonic; Diuret. —*Uses:* Scrofula, skin dis., syphil., liver dis., malaria, typhoid fever, & chron. uter. affect. —*Doses:* Alcoh. extr., 2-6 grains (0.12-0.36 Gm.). —*Fld. extr.*, 10-30 ℥ (0.6-2 Cc.).

**Berberis Vulgaris**

(Jaundice Berry; Wood-sour; Sow-berry; Pepperidge Bush; Sour-spine; Barberry.—Bark of root of *Berberis vulgaris* L. Berberideae. —*Habit.*: Europe & Western Asia; also U. S. (New England States, Pennsylvania & Virginia). —*Etymol.*: Either fr. "Barbary" (Africa), whence the tree was introduced into Spain through the Arabs; or fr. "berberis," the Arabian name for the fruit.—Thin fragments; yellowish-gray, soft periderm; inner surface smooth, orange-yellow; short, bright-yellow fracture; inodor.; bitter, non-astring. taste, & colors saliva yellow. —*Constit.*: Berberine,  $C_{20}H_{17}NO_4$ ; berbamine,  $C_{15}H_{19}NO_3 + 2H_2O$ ; oxyacanthine,  $C_{19}H_{21}NO_3$ ; tannin; wax; fat; resin; gum; starch.—Tonic; Laxat.; Febrif.; Astring. —*Uses:* Debil. & jaundice. —*Techn.*, dyeing yellow; source of berberine. —*Doses:* 30-60 grains (2-4 Gm.) in powd. or decoct. as tonic & febrif.; 60 grains (4 Gm.) as cathart.—*Fld. extr.*, 30-60 ℥ (2-4 Cc.).

*Berlin Blue.*—see **Iron Ferrocyanide**

**Beryllium Merck.**—Powd. & cryst. (15000

(Glucinum).—*Etymol.*: Fr. Grk. "beryllion," under which name beryl (an aluminum-beryllium metasilicate) was known to the

ancient Greeks & Romans.—Metal.—Be.—Color, luster, & hardness of steel.—Sp. Gr. 2.1 at 17° C.—*Sol.*, in dil. hydrochl. acid, potassa solut.; slowly in warm dil. sulphuric acid. —*Uses:* In manuf. beryllium-copper alloys, which, because of their resonance, are used in the making of musical instruments.

**Beryllium Carbonate Merck** (50

(Basic Beryllium Carbonate).—Comp. variable. —Wh. powd.—*Sol.*, acids.

**Beryllium Chloride Merck.**—Anhydrous, Sublimed (600

$BeCl_2$ .—Wh. to faintly yellowish, very deliquesce., cryst. powd.—*Sol.*, acids.

do. Merck.—99% solution (50

$BeCl_2$  & abt.  $4H_2O$ .—Colorl. or faintly yellow, syrupy liq.—*Misc.*, w. W. & A.

*Beryllium Hydrate.*—see **Beryllium Hydroxide**

**Beryllium Hydroxide Merck** (50

(Beryllium Hydrate).— $Be(OH)_2$ .—Wh. powd. —*Sol.*, alkalies, acids.

**Beryllium Nitrate Merck** (35

$Be(NO_3)_2 \cdot 3H_2O$ .—Wh. to faintly yellowish, deliq. mass.—*Sol.* W., A.—*Caut.* Keep well stoppered.

**Beryllium Oxide Merck** (85

$BeO$ .—Wh., amorph. powd.—*Sol.*, acids.

**Beryllium Sulphate Merck** (35

(Normal Beryllium Sulphate).— $BeSO_4 \cdot 4H_2O$ . —Colorl. cryst.—*Sol.* W.—*Caut.* Stopper well.

**Beryllium & Potassium Fluoride Merck** (110

$BeF_2 \cdot (KF)_2$  (Berzelius).—Wh. cryst., or amorphous, wh. masses.—*Sol.*, v. sl. in W.

**Beryllium & Sodium Fluoride Merck** (110

$BeF_2 \cdot (NaF)_2$ .—Wh. to grayish-wh., cryst. powd. —*Sol.* W.—*Uses:* Source of pure beryllium metal.

*Betachloralose.*—see **Parachloralose**

*Betacollidine.*—see **Collidine**

*Betacymophenol.*—see **Carvacrol**

*Betadiminotoluene* (or, -ol) **Hydrochloride.**—see **Tolulyenediamine (Ortho-) Hydrochloride**

*Betadibromhydrin.*—see **Alcohol, Dibromopropylic**

*Betadibromocamphor.*—see **Camphor, Dibromated**

*Beta-Eucaine.*—see **Eucaine, Beta-**

**Betaine Hydrochloride Merck** (350

(Trimethylglycine Hydrochloride; Oxyneurine Hydrochloride; Lysine Hydrochloride).—Fr. alkaloid of the sugar beet; also synthet.—

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



$C_5H_7NO_2.HCl$ .—Colorl., monoel. tablets.—*Sol.* W.—Is credited with power to completely neutralize tetanus toxin.—*Uses*: In gastric affect. like  $HCl$ .—8 m (0.5 Ce.)=5 drops 10% hydrochloric acid.

*Betaisoamylene*.—see **Amylene; Pental**

*Betamethylethylpyridine*.—see **Collidine**

*Betamethylindole*.—see **Skatol**

**Betanaphthol Merck.—Medicinal, Resublimed** (1  
 $C_{10}H_8O$ , or,  $C_{10}H_7.OH$ .—Colorl. laminae.—*Sol.* A., E., C., B., oils, alkaline liquids; sl. in W.; (950 W., 0.61 A., at 25° C.; abt. 75 boil. W.; v. sol. boil. A.—U. S. P.).—*Melt.* 122° C.—*Boil.* 285–286° C.—*Antisept.*; *Parasiticide*.—*Uses*: *Intern.*, in typhoid condit. of intest. & chronic diar.—*Extern.*, psoriasis, scabies, eczema, & o. skin affect. Apply in 2–10% ointment.—*Dose* 3–8 grains (0.2–0.5 Gm.).—*Mar. D.* 15 grains (1 Gm.) single; 60 grains (4 Gm.) p. day.—*Incomp.*, antipyrine, camphor, carbolic acid, exalgine, ferric chloride, menthol, potass. permanganate, urethane.

**do. Merck.—Medicinal, Recryst.** (1

Constit. of coal-tar; also obt. artificially.— $C_{10}H_8O$ , or,  $C_{10}H_7.OH$ .—Wh., lustr., bulky scales; darkens with age.

**do. Merck.—Medicinal, cryst. & powd.** (1  
*Antiseptic*.—*Uses*: Inst. of tar in skin dis.; salves, 1:10; solut. 0.01–0.025%.—*Caut.* Keep fr. light.

**do. Merck.—Purified, powd.** (1

**Betanaphthol Benzoate Merck** (3

(Benzoylnaphthol; Benzonaphthol).—By fusing together equal quantities betanaphthol & benzoyl chloride.— $C_{17}H_{12}O_2$ , or,  $C_{10}H_7.C_7H_5O_2$ .—Whitish powd.; darkens with age.—*Sol.* A., 33 C., alm. insol. W., E.—*Melt.* 110° C.—*Antiseptic*.—*Uses*: Diar., dysent., typhoid fever, cholera, & all intest. inflam.; also in dentistry.—*Dose* 5–15 grains (0.3–1 Gm.) 4–5 t. p. d. in wafer or mixt.—Daily dose for adults, 75 grains (5 Gm.); for children, 30 grains (2 Gm.).

**Betanaphthol Camphorated Merck** (6

(Naphthol Camphor; Naphtylated Camphor).—Mixt. of betanaphthol & camphor.—Syrupy liq.—*Sol.* A.—*Antisept.*; *Resolv.*—*Uses*: With cocaine for local tuberc. affect.; & w. oil for coryza, itch, & furuncles.

*Betanaphtholbismuth*.—see **Orphol**

*Betanaphtholdiiodide*.—see **Iodonaphthol**

*Betanaphthol Lactate*.—see **Lactol**

*Betanaphthol Orange*.—see **Tropæoline 000, No. 2**

*Betanaphthol Salicylate*.—see **Betol**

*Betanaphtholsodium*.—see **Microcidin**

**Betanaphthol Sulphoricinate Merck** (40

Solut. of abt. 6% betanaphthol in sulphoricinoleic acid.—*Antisept.*—*Misc.*, cas. W.—*Uses*: *Extern.*, in local treatment of nasal, laryngeal, & pharyngeal affections.

*Betanaphthoquinone*.—see **Napthoquinone, Beta-**

*Betanaphthylamine*.—see **Naphtylamine (Beta-)**

*Betanaphthylethylester*.—see **Bromelia**

*Betanaphthylhydrazine Hydrochloride*.—see **Naphthylhydrazine (Beta-) Hydrochloride**

*Betanaphthylmethylester*.—see **Methyl Betanaphtholate**

*Beta-parvoline*.—see **Parvoline fr. Cinchonine**

*Betaquinine*.—see **Quinidine**

*Betaresalgin*.—see **Resorcylalgin**

*Betel*.—see **Areca**

*Bethroot*.—see **Trillium**

**Betol Merck** (12

(Naphthalol; Naphthosalol; Salinaphthol; Betanaphthol Salicylate).—React.-prod. betanaphthol sodium, phosph. oxychloride & sod. salicylate.— $C_{17}H_{12}O_3$ , or,  $C_{10}H_7.OH.COOC_6H_5$ .—Wh. powd.; odorl.; tastel.—*Sol.*, boil. A.; in E., B.; insol. W., G.—*Melt.* 95° C.—*Internal Antisept.*; *Antizym.*; *Antirheum.*—*Uses*: Putrid processes of intest. tract, cystic catarrh, rheum., &c. Decomp. in intest. into salicylic acid & betanaphthol.—*Dose*, 4–8 grains (0.25–0.5 Gm.) 4 t. p. d. in wafers, milk, or emuls.

**Betony**

(Wood Betony; Bishop's-wort; Wild Hop; Betonica).—Lvs. & tops of *Betonica officinalis*, L. Labiata.—*Habit.*: Southern Europe; U. S.—*Etymol.*: Celtic "bentonie," fr. "ben." head, & "ton," good, i.e., good for headache, referring to its use as a sternutatory.—*Constit.*: Bitter prin.; tannin.—*Sternutatory*.

**Betula Alba**

(European White Birch).—Bark & lvs. of *Betula alba*, L. Betulaceæ. (Cupulifera).—*Habit.*: Europe & Northern Asia; also America, north of Pennsylvania.—*Etymol.*: Fr. Celtic "betu," birch.—Outer bark fr. limbs is brown & warty, & fr. body of tree whitish, separating in paper-like layers; bitter, astring. taste. Inner bark is bitterish & astring.—*Constit.*: Betulin (betula camphor),  $C_{36}H_{60}O_3$ , 10–12°C.; betuloresinic acid,  $C_{36}H_{66}O_5$  (?).—*Uses*: The astring. inner bark is employed as antipyr. in intermitt. fever; external whitish bark source of empyreum. oil birch (Ol. Rusci).—Lvs. are diuret.—*Doses*: Lvs.: 6–9 dr. (abt. 25–35

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

(Gm.) in infus. w. hot W., per day.—Aqu. extr., 15-30 grains (1-2 Gm.) dissolved in aqt. 3 $\frac{1}{2}$  fl. oz. (100 Ce.) W. & taken during 24 hrs.

**Bibirine**—see **Bebeerine**

**Bicalcic Phosphate**—see **Calcium Phosphate, Dibasic**

**Bicolorin**—see **Esculin**

## **Bidens Bipinnata**

(Spanish Needles).—Root of *Bidens bipinnata*, L. Compositae.—*Habit.*: Eastern U. S.—*Etymol.*: Fr. Lat. "bis," twice, & "dens," tooth, two-toothed, referring to the achenes. "Bipinnata" refers to the bipinnate lvs.—*Uses*: Expector.—*Uses*: Anemor., dysmenorr., bronch., & laryng.—*Dose*: fld. extr., 30-60 fl. (2-4 Ce.).

## **Bidens Cernua**

(Bur Marigold; Double-tooth; Water Agri-mony). Lvs. & tops of *Bidens cernua*, L. Compositae.—*Habit.*: Europe; Asia; North America.—*Etymol.*: Lat. "bis," twice, & "dens," tooth, i.e., the achenes have 2 to 5 bristles.—Lat. "cernua," bent forward.—*Constit.*: Volat. oil; pectin.; tannin.—*Emmen.*; Expector.—*Uses*: Hay asthma; remedy for gravel.

## **Biebrich Scarlet Merck**

(7)

(Ponceau).—Sod. salt amidoazobenzenedisulphonic-acid-azobetanaphthol.—Reddish-brown powd.—*Sol.* W. w. yellowish-red color.—*Uses*: As a coloring, & for dyeing wool scarlet in acid bath.

**Bikh**—see **Aconitum Ferox**

**Bilberry**—see **Vaccinium**

**Bilifulvin**—see **Bilirubin**

## **Bilifuscin Merck**

(40000)

Bile-pigment.— $C_{10}H_{20}N_2O_3(?)$ .—Dark-brown powd.—*Sol.* A., alk., hydroxides, glacial acetic acid; sl. in C.

## **Bilihumin Merck**

(13000)

Bile-pigment (Staedeler).—Dark-brown, amorphous powd.—*Sol.*, sod. hydroxide.

**Bilineurine**—see **Choline**

**Biliphacin**—see **Bilirubin**

## **Biliprasin Merck**

(36000)

Bile-pigment (Staedeler).—Prob'ly mixt. of bilifuscin & biliverdin.—Dark-green powd.—*Sol.* A.

## **Bilirubin Merck**

(31500)

(Biliphacin; Bilifulvin; Cholepyrrhin; Hematoidin).—Prin. pigment of bile, & constit. of many biliary calculi.— $C_{16}H_{18}N_3O_3$  (Staedeler, Maly.).—Orange-red powd.—*Sol.* C., B., acids & alk., sl. in A.

## **Biliverdin Merck**

(40000)

Bile-pigment, fr. oxid'n of bilirubin.— $C_{16}H_{18}NO_2$ .—Dark-green, amorph. powd.—*Sol.* A., wood A., glacial acetic acid, concentr. sulphuric acid.

## **Biodal**

(12)

(Monoiododibismuthmethylethylene Dierosinate).—Pink, odorl., tastl., insol. powd.—Antisep.—*Uses*: As of iodoform.

**Birch, White**—see **Betula Alba**

**Bird-Weed**—see **Polygonum**

**Bish.**

)—see **Aconitum Ferox**

**Bishma.**

)

## **Bismal**

(15)

(Bismuth Methylenedigallate Merck).— $4C_{12}H_{12}O_{10} + 3Bi(OH)_3$ .—Grayish-blue, bulky powd.—*Sol.*, alkalies; insol. W.—*Intest.* Astring.—*Uses*: Specially in prolonged diarrheas not benefited by opium.—*Dose* 1 $\frac{1}{2}$ -5 grains (0.1-0.3 Gm.) 3-6 t. p. d.

## **Bismarck Brown Merck**

(6)

(Vesuvine; Manchester, English, Gold, Phenylene, Cinnamon, or Aniline, Brown; Metaphenylenediamine-disazobimetaphenylenediamine Hydrochloride).—Dark-brown powd.—*Sol.* W.—*Uses*: Dyeing silk & wool; leather & cotton, when tanned, reddish-brown. Bacteriol., as contrast color. w. methyl violet.—*Caution*. Preserve solut. in dist. W. by adding a small piece of camphor.

## **Bismon**

(50)

Colloidal bismuth oxide; 20% Bi.—*Sol.*, cold & hot W.—*Uses*: As of bism. subnitrate in digestive disturbances.—*Dose* 8 grains (0.5 Gm.) in 10% aq. solut. w. milk, 3-4 t. p. d.

## **Bismuth Merck.—Highest Purity**

(8)

*Etymol.*: Derived by the alchemists fr. the German "Wismut." This word, according to Koch, is derived fr. the Arabic "wiss majaht," metal which melts as readily as storax; according to Mathesius, fr. "Wiesmatte," the name used by the ancient miners, as the tarnished surface of the metal sometimes presents beautifully variegated colors, like a meadow (German "Wiese," meadow, & "matt," dim, tarnished).—Bi.—Pure metal.—Grayish-wh., w. reddish tinge; hard & brittle; bright metal. luster.—*Sol.*, aqua regia, nitric, & hot sulphuric acids.—*Melt.* 286° C.—*Uses*: Pharmaceutically, & in dental techn.

**do. Merck.—Highest Purity, powder** (10)  
Steel-gray powd.—*Uses*: Dental techn., & in manuf. easily-fusible alloys.

**do. Merck.—Pure, gran., free fr. Arsenic** (7)

**do. Merck.—About 98%** (3)

Cont. some lead, iron, & copper, traces arsenic, antimony, & tellurium, rarely selenium.—*Uses*: Techn.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Bismuth Acetate Merck** (5)  
 $\text{Bi}(\text{C}_2\text{H}_3\text{O}_2)_3$ .—Wh. powd.—Loses acetic acid on expos., espec. when warm.—*Sol.*, acetic acid.

**Bismuth Albuminate Merck** (8)  
 Light-gray powd.—9% bismuth.—*Uses*: Choleraic or crampy symp. in stom. or intest.—*Dose* 5–15 grains (0.3–1 Gm.) 3 or 4 t. p. d.

**Bismuth Alginate**  
 (Alginoid Bismuth).—Fr. sod. alginate & solut. bism. nitrate; 32% Bi.—*Sol.*, ammonia (solut. misc. w. W.).—Decomp. in intestines.

**Bismuth Benzoate Merck** (5)  
 $\text{Bi}(\text{C}_6\text{H}_5\text{O}_2)_3$ .—Wh., tastel. powd.—*Sol.*, mineral acids; insol. W.—Antisep.—*Uses*: Intern., gastro-intest. dis.—*Extern.*, like iodoform on wounds, &c.—*Dose* 5–15 grains (0.3–1 Gm.).

*Bismuth Benzoate, Basic.*—see **Bismuth Subbenzoate**

*Bismuth Betanaphtholate.*—see **Orphol**

*Bismuth Bismuthate.*—see **Bismuth Peroxide**

**Bismuth Borate Merck** (13)  
 $\text{BiBO}_3$ .—Wh. powd.—*Sol.*, acids.—Intest. antisep.

**Bismuth Bromide Merck** (20)  
 (Bismuth Tribromide).— $\text{BiBr}_3$ .—Colorl. cryst.—*Sol.* E.—*Caut.* Keep dry.

**Bismuth Camphorate Merck** (25)  
 $\text{Bi}_2(\text{C}_{10}\text{H}_{14}\text{O}_4)_3$ .—Wh. powd.—Insol. W.

*Bismuth Carbolate.*—see **Bismuth Phenate**

*Bismuth Carbonate.*—see **Bismuth Subcarbonate**

**Bismuth Chloride Merck** (6)  
 (Bismuth Trichloride).— $\text{BiCl}_3$ .—Wh., v. deliq. cryst.; volat. by heat.—*Sol.*, in sm. quant. W.; & in W. acidulated w.  $\text{HCl}$ ; w. much W. prod. oxychloride.—*Melt.* 227° C.—*Caut.* Keep dry.

**Bismuth Chromate Merck** (8)  
 $\text{Bi}_2\text{O}_3 \cdot 2\text{CrO}_3$ .—Orange-yellow, amorph. powd.—*Sol.*, acids.—*Uses*: Pigment.

*Bismuth Chrysophanate.*—see **Dermol**

**Bismuth Citrate Merck** (4)  
 Fr. boil. bismuth subnitrate in solut. citric acid.— $\text{Bi}_2\text{O}_3 \cdot \text{H}_2\text{O}_7$ .—Wh., micro-cryst. or amorph. powd.; free fr. nitrates; odorl.; tastel.—*Sol.*, amm., solut. of alkali citrates.—Stomachic & Astring.—*Uses*: Diar., dyspep., &c.—*Dose* 1–3 grains (0.06–0.2 Gm.).—*Caut.* Keep dry, fr. light, well stoppered.

*Bismuth Dithiosalicylate.*—see **Thioform**

**Bismuth Formic-iodide** (5)  
 Mixt. of formaldehyde-gelatin, thymol iodide, & bismuth subiodide.—Surg. Antisep.; Astring.; Alter.; Analg.—*Uses*: As stim. dry dress. to wounds, ulcer., & in skin dis.

*Bismuth Gallate, Basic.*—see **Bismuth Subgallate**

**Bismuth Hydroxide Merck** (5)  
 (Bismuth Hydrate, Trihydroxide, or Trihydrate; Hydrated Bismuth Oxide).— $\text{Bi}(\text{OH})_3$ .—Wh., amorph. powd.—*Sol.*, acids; insol. W.—*Uses*: Making bismuth salts, & techn.

**Bismuth Iodate Merck** (25)  
 $\text{Bi}(\text{IO}_3)_3$ .—Heavy, wh. powd.—*Sol.*, sl. in nitric acid; insol. W.

**Bismuth Iodide Merck** (20)  
 (Bismuth Triiodide).— $\text{BiI}_3$ .—Grayish-black, metal., glist. cryst.—*Sol.*, potass. iodide solut.

*Bismuth Iodoresorcinsulphonate.*—see **Anusol**

*Bismuth Iodosalicylate.*—see **Iodylin**

**Bismuth Lactate Merck** (8)  
 $\text{C}_3\text{H}_5\text{O}_2 \cdot \text{BiH}_2\text{C}_3\text{H}_5\text{O}_2$ .—Wh., cryst. crusts, or powd.—*Sol.*, sl. in W.—*Uses*: As of bismuth subnitrate.—*Dose* 5–15 grains (0.3–1 Gm.).

**Bismuth Lactophosphate Merck** (10)  
 Wh., micro-cryst. powd.—*Sol.*, v. sl. W.

*Bismuth Lorcinate.*—see **Loretin-Bismuth**

*Bismuth, Magistery of.*—see **Bismuth Subnitrate**

*Bismuth Methylene digallate.*—see **Bismal**

**Bismuth Molybdate Merck** (25)  
 Yellow powd.—*Sol.*, mineral acids.

**Bismuth Nitrate Merck.—Cryst. (3)  
 (Bismuth Ternitrate, or Trinitrate; Normal Bismuth Nitrate).— $\text{Bi}(\text{NO}_3)_3 \cdot 5\text{H}_2\text{O}$ .—Lustr., clear, colorl., hygro. cryst.; acid taste; changed to subnitrate by W.—*Sol.*, acids, G.—Astring.; Antisep.—*Uses*: Phth. diar., &c.; also techn.—*Dose* 5–10 grains (0.3–0.6 Gm.).**

*Bismuth-Nosophen.*—see **Eudoxin**

**Bismuth Oleate Merck.—Dry (5)  
 Comb. bismuthous oxide & oleic acid.—Yellowish-brown, soft, granular mass.—*Sol.* E.**

*Bismuth Ortho-oxyquinolinemetaiodosulphonate.*—see **Loretin-Bismuth**

**Bismuth Oxalate Merck** (5)  
 $\text{Bi}_2(\text{C}_2\text{O}_4)_3 \cdot 15\text{H}_2\text{O}$ .—Wh., granular powd.—*Sol.*, acids.

*Bismuth Oxide.*—see **Bismuth Trioxide**

*Bismuth Oxide, Hydrated.*—see **Bismuth Hydroxide**

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

**Bismuth Oxybromide Merck** (15)  
(Bismuthyl Bromide)  $\text{BiOBr}$ —Yellowish-white powd.—*Sol.*, acids.—*Uses*: Nerv. dyspep., hysteria w. gastric pains & vomiting.—*Dose* 5-7 grains (0.3-0.4 Gm.) several t. p. d.

**Bismuth Oxy carbonate**.—see **Bismuth Subcarbonate**

**Bismuth Oxychloride Merck** (5)  
(Bismuthyl Chloride, Pearl White).— $\text{BiOCl}$ .—Wh., lustr., cryst. powd.—*Sol.*, hydrochl. acid; insol. W.—*Uses*: Face powders, pigment, &c.

**Bismuth Oxyiodide Merck** (6)  
(Bismuth Subiodide)— $\text{BiOI}$ .—Brownish-red, amorph., insol. powd.; odorl.; tastel.—67% bismuth trioxide.—*Antisept.*—*Uses*: *Extern.*, on suppurat. wounds, ulc., in skin dis., gonorr., &c.—*Intern.*, gastric ulc., typh. fever, & dis. muc. membr.—*Dose*  $1\frac{1}{2}$ -3 grains (0.1-0.2 Gm.) 3 t. p. d., in mixture, powder, or capsule.—*Appl.*, like iodoform; in gonorr. in 1:1000. inj.

**Bismuth Oxyiodogallate**.—see **Airol**

**Bismuth Oxydomethylgallate**.—see **Iodogallicin**

**Bismuth Oxyiodotannate**.—see **Ibit**

**Bismuth Pancreatized Merck** (10)  
Yellowish-white powd.—10% bismuth trioxide.—Insol. W.—Astring.; Antisept.—*Uses*: As of bismuth subnitrate, but larger doses are given.

**Bismuth Peptonized Merck** (5)  
(Bismuthated Peptone).—Grayish-yellow, soluble bismuth comp.—*Uses*: Dyspep., gastralgia, &c.; 3.5% bismuth trioxide.—Stomachic.—*Dose* 30-75 grains (2-5 Gm.), 2 or 3 t. p. d.

**Bismuth Permanganate Merck** (15)  
 $\text{Bi}(\text{MnO}_4)_3$ .—Black, bulky powd.—*Sol.*, dil. acids.—Antisept.—*Uses*: *Extern.*, dusting powder for wounds, & ulc., for combined effect of bismuth & permang. acid.

**Bismuth Peroxide Merck** (11)  
(Bismuth Bismuthate).— $\text{Bi}_2\text{O}_4$ .—Brown powd.; loses oxygen at 150° C.; decomp. by acids.

**Bismuth Phenate Merck** (11)  
(Bismuth Carbolate or Phenylate; Phenolbismuth).— $\text{Bi}(\text{OH})_2\text{C}_6\text{H}_5\text{O}$  (B. Fischer).—Grayish-wh. powd.; alm. odorl. & tastel.—80%  $\text{Bi}_2\text{O}_3$ .—Antisept.—*Uses*: *Intern.*, intest. antisept.—*Extern.*, like iodoform.—*Dose* 5-15 grains (0.3-1 Gm.).

**Bismuth Phenolsulphonate Merck** (13)  
(Bismuth Sulphophenate, or Sulphocarbolate).—Pale reddish powd.—*Sol.*, partially W.—Antisept.—*Uses*: Intest. disinfect. in typhoid fever, dyspep., abnorm. intest. ferment, &c.—*Dose* 3-8 grains (0.2-0.5 Gm.) 3 or 4 t. p. d.

**Bismuth Phenylate**.—see **Bismuth Phenate**

**Bismuth Phosphate Merck** (5)  
 $\text{BiPO}_4$ .—Wh. powd.—*Sol.*, acids; insol. W.

do. **Merck**.—Soluble (8)  
Wh. powd.—*Sol.*, abt. 3 W.—Contains equiv. of abt. 20% bismuth trioxide, besides phosphoric acid & soda. Intest. Antisept., & Astring.—*Uses*: Acute gastric & intest. catarrh.—*Dose* 3-8 grains (0.2-0.5 Gm.) 3 t. p. d.

**Bismuth Propionate Merck** (45)  
 $\text{Bi}(\text{C}_2\text{H}_5\text{O}_2)_3(?)$ .—Wh., amorph. powd.—*Sol.*, acids.

**Bismuth Pyrogallate Merck**  
(Helcosol; Basic Bismuth Pyrogallate).—By action of 1 part pyrogallie acid on 2 bismuth carbonate.  $\text{C}_6\text{H}_3(\text{OH})_3\text{BiOH}$ .—Yellow, amorphous powd.; odorl.; tastel.—60%  $\text{Bi}_2\text{O}_3$ .—*Sol.*, sl. in v. dil. hydrochl. acid; insol. W., A.—*Intern.* & *Extern.* Antisept., like bism. subgallate.—*Uses*: *Intern.*, as intest. antisept.—*Extern.*, in skin dis., &c.—*Dose* 5-15 grains (0.3-1 Gm.) in powder or tablets.—*Appl.*, as of bismuth subgallate.

**Bismuth Resorcinated Merck** (15)  
(Resorcinol-bismuth).—Fr. bismuthous oxide & resorcinol; comp. variable.—Yellowish-brown powd.—Abt. 40%  $\text{Bi}_2\text{O}_3$ .—Insol. W.—*Uses*: Acute & chron. gastr. catarrh, & abnorm. gastric ferment. processes.—*Dose* 3-8 grains (0.2-0.5 Gm.) several t. p. d.

**Bismuth Salicylate Merck**.—Abt. 40%  $\text{Bi}_2\text{O}_3$ .—(Do not confound with Bismuth Subsalicylate, U. S. P.) (3)  
(Acid Bismuth Salicylate).—Bulky, wh. powd.—Abt. 40% bismuth trioxide.—Loses salicylic acid when treated w. ether or alcohol.—Intest. Astring. & Antisept.—*Uses*: Dyspep., catarrh, enteritis, cyst., & dis. of alimentary canal.—*Dose* 5-10 grains (0.3-0.6 Gm.).

**Bismuth Salicylate, Basic**, 64%  $\text{Bi}_2\text{O}_3$ .—see **Bismuth Subsalicylate**

**Bismuth Subbenzoate Merck** (4)  
(Basic Bismuth Benzoate).— $\text{Bi}(\text{C}_6\text{H}_5\text{O}_2)_3\text{Bi}(\text{OH})_3$ .—Wh. powd.—65-70% of  $\text{Bi}_2\text{O}_3$ .—Insol. W.—Antisept. like iodoform.—*Uses*: As dust. powd. for syph. ulc., &c.

**Bismuth Subcarbonate Merck** (3)  
(Bismuth "Carbonate," or Oxy carbonate).— $(\text{BiO})_2\text{CO}_3$ .—Wh., insol., tastel. powd.—*Sol.*, acids; insol. W.—Stomachic; Astring., &c.—*Uses*: *Intern.*, diar., vomit., & dis. condit. of alim. canal.—*Extern.*, face powd.—*Dose* 5-30 grains (0.3-2 Gm.).

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Bismuth Subgallate Merck**

(4)

(Dermatol.; Basic Bismuth Gallate).— $\text{Bi}(\text{OH})_2\text{C}_7\text{H}_5\text{O}_6$ .—Odorl., saffron-yellow powd.—52–57% of bismuth oxide.—*Sol.*, dil. alkalies; insol. W., A., E., C.—*Antisept.*; *Astring.*—*Uses:* *Intern.*, gastro-intest. affect. (bismuth indic.), diar., dysent., &c.—*Extern.*, wounds, burns, weep. ecz., & ulc.—*Dose* 4–8 grains (0.25–0.5 Gm.) 4–8 t. p. d., w. opium if pain.—*Appl.* 10–20% oint. or dust-powd.

*Note.*—This is a most desirable & efficient preparation, because of its absolute freedom from free, & possibly irritating, gallic acid.

*Bismuth Subiodide.*—see **Bismuth Oxyiodide**

**Bismuth Subnitrate Merck**

(3)

(Magistery of Bismuth).—Mist. of  $\text{BiNO}_3(\text{OH})_2$  &  $\text{BiONO}_3 \cdot \text{BiOOH}$  (U. S. P.).—Wh., heavy powd.—Not less than 80%  $\text{Bi}_2\text{O}_3$ .—*Sol.*, acids; insol. W.—*Antisept.*; *Astring.*—*Uses:* *Intern.*, subacute gastr., pyrosis, gastral., irrit. condit. of intest., diar., dysent., &c.—*Extern.*, acute & chronic moist ecz., herpes zoster, ulc., fiss., excoriat., gonorr., leucorr., &c.—*Dose* 5–60 grains (0.3–4 Gm.) in powd., or w. liquids, but not in pill, serv. t. p. d.—*Appl.*, as dust. powd.; in aqu. suspension in gonorr.—*Techn.*, manuf. of bismuth flux for enamels; cosmetics.—*Antid.*, sacchar. ferric oxide; diuretics; pilocarpine subcut.—*Incomp.*, alkaline bicarbonates (in water); with potass. iodide double decomp. slowly sets in; gallic acid; calomel; salicylic acid; tannin; sulphur.

*Note.*—This article is particularly well adapted for infants' use, as it is free from arsenic, lead, & silver.

**Bismuth Subnitrate Merck.—Reagent**

(5)

(Basic Bismuth Nitrate).—Wh., microcryst. powd.—*Sol.*, dil.  $\text{HCl}$ ,  $\text{HNO}_3$ , or  $\text{H}_2\text{SO}_4$ ; insol. W., A.—*Tests:* ( $\text{H}_2\text{CO}_3$ ; Pb; Cu; Alkali Salts, &c.) 0.5 Gm. + 25 Ce. dil.  $\text{H}_2\text{SO}_4$ —clear solut. without warm., & without evol. of  $\text{CO}_2$ . To 10 Ce. solut. add excess  $\text{NH}_4\text{OH}$ —colorl. filtrate. Treat 10 Ce. of  $\text{H}_2\text{SO}_4$ -solut. w.  $\text{H}_2\text{S}$  gas to compl. ppt. Bi; filter; evap. filtrate & ignite—no wghble res.—(Cl) 0.5 Gm. + 5 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + solut.  $\text{AgNO}_3$ —at most sl. opalesc.—( $\text{H}_2\text{SO}_4$ ) 0.5 Gm. + 5 Ce.  $\text{HNO}_3$  + 5–10 drops solut.  $\text{Ba}(\text{NO}_3)_2$ —no turb.—( $\text{NH}_3$ ) warm 1 Gm. + 10 Ce. solut.  $\text{NaOH}$  (sp. gr. 1.3)—no  $\text{NH}_3$  evol. (test w. moist litmus paper).—(Res.) ignite 1 Gm. —res. should weigh 0.79–0.82 Gm. ( $\text{Bi}_2\text{O}_3$ ).—(As) diss. ignition res. fr. 1 Gm. in  $\text{H}_2\text{SO}_4$  w. heat; introduce in sm. quantities into a Marsh apparatus started w. 20 Gm. As-free gran. Zn & dil. (1:5)  $\text{H}_2\text{SO}_4$ —no As deposit in reduct. tube within half an hour.—*Uses:* Prepar. reagents for albumin & dextrose. Converting sulphides of arsenic into corresponding acids.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by

D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Bismuth Subsalicylate Merck.**—U. S. P. — 62–66%  $\text{Bi}_2\text{O}_3$ 

(4)

(Basic Bismuth Salicylate).— $\text{Bi}(\text{C}_7\text{H}_5\text{O}_3)_3 \cdot \text{Bi}_2\text{O}_3$ .—Wh., bulky, micro-cryst. powd.; odorl.; tastel.: 64% of bismuth trioxide, free fr. subnitrate.—*Sol.*, acids, alkalies w. decomp.; insol. W., A., E.—*Extern.* & *Intest.* *Antisept.* & *Astring.*—*Uses:* *Intern.*, phth. diar., summer complaint, typhoid, &c.—*Extern.*, like iodoform.—*Dose* 5–15 grains (0.3–1 Gm.).

*N. B.*—Bismuth Subsalicylate is the article that should invariably be dispensed on prescriptions calling for "Bismuth Salicylate" without any further designation.

**Bismuth Sulphate Merck**

(5)

(Bismuth Trisulphate).— $\text{Bi}_2(\text{SO}_4)_3$ .—Amorph., wh. powd.; decomp. by W.—*Sol.*, nitric acid.—*Caut.* Keep dry.

**Bismuth Sulphide Merck**

(11)

$\text{Bi}_2\text{S}_3$ .—Blackish-brown powd.—*Sol.*, nitric & boil. conc. hydrochl. acids; insol. W. & dil. acids.

**Bismuth Sulphite Merck**

(15)

Composition doubtful.—Wh. powd.—*Sol.*, acids.

*Bismuth Sulphocarbonate.*

*Bismuth Sulphophenate.*

*Bismuth Sulphophenylate.*

} —see **Bismuth Phenolsulphonate**

**Bismuth Tannate Merck**

(4)

Yellow powd.—*Sol.*, acids; insol. W.—*Astring.*; *Antisept.*—*Uses:* Relaxed condit. muc. membr. alim. canal; dysent., diar., &c.—*Dose* 10–30 grains (0.6–2 Gm.); children, this quantity p. d.

**Bismuth Tartrate Merck**

(8)

$\text{Bi}_2(\text{C}_4\text{H}_4\text{O}_6)_3 + 6\text{H}_2\text{O}$ .—Wh. powd.—*Sol.*, readily in alkalies & hydrochloric acid.

*Bismuth Ternitrate.*—see **Bismuth Nitrate**

**Bismuth Tetroxide Merck**

(11)

(Bismuth Peroxide).—By oxid'g bismuth trioxide.— $\text{Bi}_2\text{O}_4$ .—Heavy, yellowish-brown powd.—Insol. W.

*Bismuth Tribromide.*—see **Bismuth Bromide**

*Bismuth Tribromocarbonate.*

*Bismuth Tribromophenate.*

} —see **Xeroform**

*Bismuth Trichloride.*—see **Bismuth Chloride**

*Bismuth Trihydrate.*

*Bismuth Trihydroxide.*

} —see **Bismuth Hydroxide**

*Bismuth Triiodide.*—see **Bismuth Iodide**

*Bismuth Trinirate.*—see **Bismuth Nitrate**

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Bismuth Trioxide Merck** (10)

(Bismuthous Oxide)— $\text{Bi}_2\text{O}_3$ .—Heavy, yellow powd.—*Sol.*, acids; insol. W. —*Uses, Doses, &c.*: As of bismuth subnitrate. —*Inc mp.*, alkalies, W. in excess.

*Bismuth Trisulphate.*—see **Bismuth Sulphate**

**Bismuth Tungstate Merck** (20)

(Bismuth Wolframate).—Wh. powd.; easily decomp.—*Sol.*, acids; insol. W.

**Bismuth Valerate Merck** (7)

$\text{Bi}(\text{C}_2\text{H}_5\text{O}_2)_3 \cdot 2\text{Bi}(\text{OH})_3(?)$ .—Wh. powd.; odor of valeric acid.—*Sol.*, dil. hydrochl. or nitric acid; insol. W. or A. Sedative; Antispasm.—*Uses*: Cephalal., neural., cardiac., epilepsy, chorea, &c.—*Dose* 1-3 grains (0.06-0.2 Gm.). —*Caut.* Keep well stoppered.

*Bismuth Wolframate.*—see **Bismuth Tungstate**

**Bismuth & Ammonium Citrate Merck** (4)

Comp. variable.—Pearly, shin., transp. scales; sl'y acid, metal, taste; opaque on expos.—*Sol.* W.; sl. in A.—Stomachic & Astring.—*Uses*: Dyspepsia, irritable stomach, diar., &c.—*Dose* 1-3 grains (0.06-0.2 Gm.).—*Appl.*, in 1-4:2000 aq. solut. in urethral irrigat. in gonorr.—*Caut.* Keep fr. light, well stoppered.

**Bismuth & Cerium Oxalate Merck** (6)

$\text{Bi}(\text{Ce}(\text{C}_2\text{O}_4)_2)_6$ .—Wh. powd.—*Sol.*, in HCl; insol. W.

**Bismuth & Cerium Salicylate Merck** (6)

Wh. powd.—Insol. W., A.—Antisep.; Antirheum.—*Uses*: Intest. & rheumat. affect.

**Bismuth & Cerium Valerate Merck** (15)

Wh. powd.—*Sol.*, mineral acids; insol. W.

**Bismuth & Potassium Iodide Merck.**—Solution (4

(Dragendorff's Reagent).—Aq. solut.  $\text{BiI}_3 \cdot 4\text{KI}$ . —*Reag.* for alkaloids.

**Bismuth & Potassium Tartrate Merck.**—Solution (2)

Colorl. liq.—*Misc.* W.—*Uses*: As reagent for glucose in urine.

**Bismuth & Sodium Benzoate Merck** (6)

Wh. powd.—Intest. Antisep.—*Uses*: Dis. of alim. tract & as appl. to ulc., &c.

**Bismuth & Sodium Iodide Merck** (25)

$\text{BiI}_3 \cdot 4\text{NaI}$ .—Red cryst.; decomp. by water.—*Sol.*, dil. acids.—Alter.; Antisep.

*Bismuth & Sodium Phosphosalicylate.*—see **Bismuthol**

**Bismuth & Sodium Salicylate Merck** (8)

Wh., bulky powd.; decomp. by water.—Mist. of basic bism. salicylate & sod. salicylate in molec. proport.—Antisep.; Disinf.; Antirheum.—*Uses*: Intest. dis. & rheum. affect.

*Bismuthated Peplone.*—see **Bismuth Peptonized**

**Bismuthol**

(Bismutol; Bismuth & Sodium Phosphosalicylate).—Wh., cryst. powd.; odorl.; agre. taste.—Antisep.; Astring.—*Uses*: *Extern.*, cuts, burns, purulent wounds, ulc. tuberc. or syph. sores, skin dis., gonorr., &c.—*Appl.*, in 10-30% oint. or dust.-powd. (with tale), or in 1-4% solut.

*Bismuthyl Bromide.*—see **Bismuth Oxybromide**

*Bismuthyl Chloride.*—see **Bismuth Oxychloride**

*Bismutol.*—see **Bismuthol**

**Bismutose** (10)

Bismuth-albumin compound; contains abt 22% Bi & abt. 66% albuminoid.—Wh. powd.—*Sol.*, alkalies; sl. dil. acids; insol. W.—*Uses*: Intest. & gastric affect., partic. in children.—*Dose* 15-30 grains (1-2 Gm.) for children under 6 mos. old; 1 teaspoonful for older children.

*Bisol*=**Bismuth Phosphate, Soluble.**—see **Bismuth Phosphate, Soluble**

**Bistort**

(Snakeweed; Adderswort; Snakewort).—Root of Polygonum Bistorta, L. Polygonaceae.—*Habit.*: Europe; Northern Asia; North America.—*Etymol.*: Lat. "bis," twice, & "tortus," turned, referring to the shape of the root. "Polygonum," fr. Grk. "poly," many, & "gonos," offspring.—*Constit.*: Gallic acid; tannin; starch.—Astring.; Emmen.; Stim.—*Uses*: Acute & chron. intest. catarrh, dysent., & amenor.—*Extern.*, in preparations intended to promote growth of hair.—*Dose* 5-60 grains (0.3-4 Gm.).—Aq. extr., 8-15 grains (0.5-1 Gm.) several t. p. d. in leucor.—Fld. extr., 20-60 ml (1.3-4 Ce.).

*Bitter Milkwort.*—see **Polygala**

*Bitter Root.*—see **Apocynum Androsæmifolium**

*Bitter Salt.*—see **Magnesium Sulphate**

*Bittersweet.*—see **Dulcamara**

*Bitumen.*—see **Asphaltum**

**Biuret Merck** (200)

(Allophanamide).—Fr. urea by heat.— $\text{C}_2\text{H}_5 \cdot \text{N}_3\text{O}_2 + \text{H}_2\text{O}$ , or,  $\text{NH}_2\text{CO} \cdot \text{NH} \cdot \text{CO} \cdot \text{NH}_2 + \text{H}_2\text{O}$ .—Wh., cryst. need.; decomp. by heat into ammonia & cyanuric acid.—*Sol.*, hot W.—*Melt.* 190° C., w. decomp.

**Bixin Merck** (130)

Red coloring matter fr. seeds Bixa Orellana, L. (Annatto).—Not ident. w. orlean extract.— $\text{C}_{28}\text{H}_{34}\text{O}_6$ .—Dark red powd.—*Sol.* C., hot A.; sl. E.—*Melt.* 176° C.—*Uses*: Dye.

**Bizzzero's Picrocarmine**

Solut. 1 Gm. carmine in 6 Ce. ammonia & 100 Ce. W., mixed w. solut. 1 Gm. picric acid in

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



100 Cc. W.; liquid is evaporated to 100 Cc., & 20 Cc. alcohol added.—*Uses*: As of Ranvier's picrocarmine.

*Black Alder*.—see *Alnus Serrulata*; *Winterberry*

*Black Antimony*.—see *Antimony Sulphide*

*Black Balsam*.—see *Balsam Peru*

*Blackberry*.—see *Rubus*

*Black Caraway*.—see *Nigella Sativa*

*Black Cohosh*.—see *Cimicifuga*

*Black Currant*.—see *Ribes*

*Black Haw*.—see *Viburnum Prunifolium*

*Black Hellebore*.—see *Helleborus Niger*

*Black Indian Hemp*.—see *Apocynum*

*Black Lead*.—see *Graphite*

*Black Precipitate*.—see *Mercury Oxide, Black, Hahnemann*

*Black Snake Root*.—see *Cimicifuga*

*Blackthorn*.—see *Prunus Spinosa*

*Blackwort*.—see *Symphytum*

*Bladder Wrack*.—see *Fucus*

*Blanc Fixe*.—see *Barium Sulphate*

## Blatta

(Cockroach).—*Periplaneta* (*Blatta*) *orientalis*, L. Insecta, Orthoptera.—*Habit.*: Asia originally; now domesticated in all parts of the world.—*Etymol.*: Fr. "blatta," the Lat. name for the insect, & "orientalis," from the East.—*Const.*: Blattnic acid; antihydropin (taracanthin); fetid, fatty oil; and volat. trimethyl-aniline base(?).—*Diur.*: Diaphor.—*Uses*: *Intern.*, in dropsy, Bright's disease, whooping-cough, etc.—*Extern.*, as oily decoct. for warts, ulcers, boils, &c.—*Doses*: 10-15 grains (0.6-1 Gm.) in dropsy, as powd., or 1-6 tinct., or pills; or 4 fl. dr. (15 Cc.) of 5-10:150 decoct. 3 t. p. d.

*Blazing Star*.—see *Helonias*

*Bleaching Powder*.—see *Lime, Chlorinated*

## Blepharis

(Ubu-Illungu [the Kaffir name]).—Lvs. & tops of *Blepharis capensis*, Pers. Acanthaceae.—*Habit.*: Southern Africa.—*Etymol.*: Grk. "blepharis," eyelash, i.e., the bracts bear filaments resembling eyelashes. "Capensis," of or relating to the Cape, i.e., where found.—*Const.*: Unknown.—*Uses*: As antidote to poisoning by snake-bites, & as remedy for blood-poisoning fr. consumption of meat of animals affected with anthrax; also as remedy for toothache.—

*Dose* 3 to 4 fl. oz. (90-120 Cc.) of decoct. (1:100) daily; in toothache, a paste of the powdered leaves, or a tincture, is applied to the painful spot or tooth.

*Blessed Thistle*.—see *Cnicus*

*Blood Merck*.—Fr. *Bullocks*.—Dry powder (3 Dark, reddish-brown powd.—*Sol.*, incompletely in W.—*Uses*: Anemia, chlorosis; also techn.—*Dose* 15 grains (1 Gm.) several t. p. d.

do. *Merck*.—Fr. *Bullocks*.—Scales (3 Reddish-brown scales.—*Sol.* W.—*Uses & Dose*: As above.

*Blood Elder*.—see *Ebulus*

*Bloodroot*.—see *Sanguinaria*

*Bloodstone*.—see *Hematite*

*Bloodwort*.—see *Ebulus*

*Blue Black*.—see *Nigrosine, Benzin-soluble*

*Blue Cohosh*.—see *Caulophyllum*

*Blue Flag*.—see *Iris*

*Blue Malachite, Artificial*.—see *Copper Carbonate, Blue*

*Blue Mass*.—see *Mercury, Mass of*

*Blue Ointment*.—see *Ointment Mercurial, Dilute*

*Blue Pill*.—see *Mercury, Mass of*

*Blue Verdigris*.—see *Copper Acetate, Basic, Blue*

*Blue Vitriol*.—see *Copper Sulphate*

*Boq Rush*.—see *Juncus*

## Bohlig's Reagent.—For Ammonia

I, 1:30 aq. solut. corros. sublim.; II, 1:50 aq. solut. potass. carbonate.—On adding solut. I, free ammonia & ammonium carbonate yield a wh. ppt.; other ammonium salts are pptd. only on addition of solut. II.

## Böhmer's Hematoxylin

Alcoh. 10% solut. hematoxylin.—*Uses*: As basis of other staining soluts.

## Böhmer's Hematoxylin-Alum

Solut. 1 Gm. hematoxylin in 10 Cc. alcohol, mixed w. solut. 10 Gm. potassium alum. in 200 Cc. W.—*Uses*: Staining nuclei.

## Boldin (Glucoside)

(Boldogluin).—Fr. *Peumus Boldus*, Molina.—Leaves cont. 3% C<sub>35</sub>H<sub>55</sub>O<sub>8</sub>(?).—Syrupy liq.—*Sol.* A.—Cholag.; *Diur.*; Tonic.—*Uses*: Dis. of liver & rheum.—*Dose* 1-3 grains (0.06-0.2 Gm.) 5 or 6 t. p. d., in caps.

**Comparative Values** (see Preface, page vi): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Nyoselyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Boldine Merck**

(2000

Alkaloid fr. *Peumus Bolu*, Molina.—Grayish-wh., alkal., bitter powd.—*Sol.* A, E, C.—*adm.* mod. W. Hypn.—*Uses:* In hepatic effect in conjunct. w. calomel. *Febr.*, in jaundice in dose.—*Dose:* 1/2 grm. (0.002-0.006 Gm.); in veter. medicine, 1/2-3/4 grm. (0.004-0.006 Gm.), combined w. calomel.

**Boldo**

*Boldo*; *Boldoa*; *Boldus*; *Boldon*.—Lvs. of *Boldoa fragrans* (*Peumus Boldus* Mol., Gay, Monniaceae.—*Habit.* Peru, Chili.—*Etymol.*: Named for the Spanish botanist, D. Boldo.—*Constit.*: Volat. oil, boldine, boldoglucin, C<sub>11</sub>H<sub>16</sub>O<sub>2</sub>; tannin.—*Diuret.* Tonic; Stim.; Sedat.—*Uses:* Dis. of the liver & bladder; also in atony of various organs where quinine is contraindic.; rheumat., dyspep., gonorr., chron. hepat. torpor, &c.—*Techn.*, in perfumery.—*Dose:* 2-5 grains (0.12-0.3 Gm.) in powd.—*Fld. extr.*, 4-8 M (0.25-0.5 Cc.).—*Tinct.*, 10-20 M (0.6-1.3 Cc.).

*Boldoglucin*.—see **Boldin (Glucoside)**

**Bole, Armenian**

*Bolus Armena*; *Bolus Rubra*; *Red Bole*.—Natural ferruginous aluminum silicate.—*Habit.*: Originally Armenia, but now found elsewh. in Europe.—*Etymol.*: Fr. Grk. "bolos," a clod of earth.—Pieces of various sizes, reddish, soft, & unctuous; adhesive to the tongue; easily reduced to powd.—*Sp. Gr.* 1.9-2.0.—*Uses:* Veter. medicine; color. powders; cements; pigment.

*Bolus*.—see **Agaric**

*Bolus Alba*.—see **Kaolin**

*Bolus Rubra*.—see **Bole, Armenian**

**Bonduc**

(Nicker Seed; Gray Nicker Nuts [or Seeds]; Bezor Nuts; Molluca Bean).—Seed of *Guilandina Bonducella*, L. (Cesalpinea *Bonducella* Roxb.) Leguminosae, Casalpiniaaceae.—*Habit.*: Shores of tropical Asia, Africa, & South America (Sumatra, Borneo, New Guinea, Brazil).—*Etymol.*: Fr. arabic "bondog," hazelnut (also necklace).—*Constit.*: Bonducin, guilandin.—*Uses:* Antimalarial.—*Dose:* 8-15 grains (0.5-1 Gm.) 3 t. p. d.

*Bone Black*. } —see **Charcoal, Animal**  
*Bone Charcoal*. }

*Bone Marrow, Red, Dried*.—see **Marrow, Red, Bone**

*Bonsect*.—see **Eupatorium**

**Borage**

(Burrage; Bee Bread; Star-flower).—Flowers & lvs. of *Borago officinalis*, L. Boraginaceae.—*Habit.*: Levant; cultivated in Germany & U. S.—*Etymol.*: Fr. low Lat. "borra," rough hair, i.e., the whole plant is furnished with bristly hairs; or fr. Grk. "bora," food, i.e., the lvs. when

fresh are used as salad; or, corrupted fr. Lat. "cor," heart, & "ago," to move, i.e., a vinous infusion cheers the heart (L'iny.—*Constit.*: *Flavore*. Resin; mucilage, potassium nitrate.—*L.* Mucilage; resin; tannin.—*Flowers*: Emoll.; Demule.; *Diuret.*—*Uses*: Demule.; Refrig.; Diaphor.—*Uses*: Employed in catarrhal affect., rheumat., & skin dis.; lvs., also as kitchen vegetable.—*Dose*: *Fld. extr.*, 30-60 M (2-4 Cc.).

**Boral**

(15

(Aluminum Borotartrate).—Wh. cryst.; sweet, astring. taste.—*Sol.* W.—*Disinf.*: Astring.—*Uses*: *Extern.*, inflam. dis. of nose & throat, chiefly. *Appl.*, in substance, or in solut. w. addition of glycerin.

*Borax*.—see **Sodium Borate**

*Borax-Carmine*.—see **Nikiforoff's Borax-Carmine**

*Borax-Carmine, Alcoholic*.—see **Grenacher's Alcoholic Borax-Carmine**

*Borax Glass*.—see **Sodium Borate, Fused**

*Borax Glycerite*.—see **Sodium Glycerinoborate**

*Borax-Methylene Blue*.—see **Sahli's Borax-Methylene Blue**

**Bordeaux Red Merck**

(6

Sodium salt of alphanaphthylamineazobetanaphtholdisulphonic acid.—Brown powd.—*Sol.* W. w. fuchsine-red color.—*Uses*: Coloring & dyeing.

**Borneol Merck**

(25

(Baras, Sumatra, Borneo, or Malayan, Camphor; Bornyl Alcohol; Camphol).—Fr. Dryobalanops aromatica, Gaert., or fr. ordinary camphor by sod. or potass. alcoholate.—C<sub>10</sub>H<sub>18</sub>O, or, C<sub>10</sub>H<sub>17</sub>OH.—Wh., transl. subst.; peculiar, peppery odor; burning taste. Less volat. than ordinary camphor; together w. acetic & valeric acids, it constitutes the odorous principles of pines & firs.—*Sp. Gr.* 1.011 at 15° C.—*Sol.* A, E.—*Melt.* 203-204° C.—*Boil.* 212° C.—Stim.; Antisep.—*Uses*: *Extern.*, in oint. as antisep. appl. for sores, headache, &c.—*Techn.*, incense & perfumery.

*Borneol Isovalerate*.—see **Bornyval**

*Bornyl Alcohol*.—see **Borneol**

**Bornyval**

(Borneol Isovalerate).—Colorl. liq.; odor & taste of valerian.—*Sol.* A, E; insol. W.—Nervine.—*Uses*: Hysteria, nervous excitement & palpitation.—*Dose:* 4 M (0.25 Cc.) in gelat. caps., 4 t. p. d.

**Boroglycerin Merck.—Dried**

(3

(Glyceryl Borate; Glycerite, or Glyceride, of Boric Acid).—Fr. boric acid (2), by heat. w. glycerin (3).—C<sub>3</sub>H<sub>5</sub>BO<sub>3</sub>.—Wh., transp., glassy,

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



brittle, & hygroscopic masses.—*Sol.*, hot W.; changes into glycerin & boric acid.—*Antisept.*; *Preserv.*—*Uses*: *Intern.*, antisept.—*Techn.*, preserv.—*Dose* 30–75 grains (2–5 Gm.).

**Boroglycerin Merck.**—Syrupy (2)  
Sw., syr. liq.—*Antisept.*—*Uses*: Preservative.  
(See also Barff's Boroglycerin.)

**Boron Merck.**—Amorph. (400)  
*Etymol.*: Fr. "borax," which in Persian signifies "melter of metals."—Non-met. element.—B.  
—Very soft, brown, amorph. powd.; ignites in air.—*Insol.* acids.

**do. Merck.**—Cryst. (2200)  
(Wöhler's Boron-carbon Compound).—Exceed. hard, brown, or reddish-yellow to black, cryst.—*Uses*: *Techn.*, inst. of diamond in glass-cut. & gem-polish.

**Boron Oxide.**—see (Acid) Boric Anhydride

**Boron Tribromide Merck** (320)  
 $\text{BBr}_3$ .—Colorl., fum. liq.; decomp. by W.—*Sp. Gr.* 2.69 at 15° C.—*Boil.* 90° C.

**Boron Trichloride Merck** (300)  
 $\text{BCl}_3$ .—Colorl., fum. liq.; decomp. by W.—*Sp. Gr.* 1.35 at 15° C.—*Boil.* 18° C.

**Borsalyl.**—see Sodium Borosalicylate

**Böttger's Ozone Paper.**—see Gold-chloride Paper

**Bouchardat's Reagent.**—For Alkaloids

Solut. 1 part iodine & 2 parts potassium iodide in 50 W.—Gives brown precip. w. alkaloids.—*Uses*: For detecting alkaloids, even in urine.

**Boules de Nancy.**—see Iron & Potassium Tartrate, Globules

**Boutron-Boudet's Soap Solution**

Potass. soap dil. to a definite standard.—45 pts. represent 0.012 pt. calcium oxide.—*Uses*: Determination of the hardness of W.

**Bowdichia**

(Soucoupire; Schipira).—Bark of Bowdichia major, Mart. Papilionaceae.—*Habit.*: Brazil.—*Etymol.*: Named for the English traveler, Thos. Ed. Bowdich (1790–1824).—Bark is hard, yellow, & very bitter.—*Constit.*: Mydriatic alkaloid; several resins; glucoside sicopirin(?).—*Uses*: Antisyph.; Antirheum.; Diaphor.; Febrif.

**Brachycladus**

Lvs. & root of Brachycladus Stueckerti. Composite.—*Habit.*: Argentine Republic.—*Etymol.*: Grk. "brachys," short, & "klados," branch. Plant named for Stueckert, a pharmacist in Cordoba (Argent. Repub.) who describ. the plant in 1900.—*Constit.*: Unknown.—*Uses*: In asthma & mountain dis., in form of cigarettes.

**Brain Substance, Dried.**—see Cerebrum, Dried

**Bramble, Common.**—see Rubus Fruticosus

**Brasilin.**—see Brazilin

**Brassica Alba & Nigra.**—see Sinapis Alba, & Sinapis Nigra

**Brayera.**—see Kousso

**Brayerin.**—see Koussein

**Brazil Wax.**—see Carnauba Wax

**Brazil Wood.**—see Pernambuco

**Brazilin**

By oxid'g brazilin in pres. of alkali.— $\text{C}_{16}\text{H}_{12}\text{O}_5 + \text{H}_2\text{O}$ .—Minute cryst.; gray luster; or reddish-brown powd. Solut. yellowish-pink & fluoresce. green.—*Sol.*, hot W.—*Uses*: Dye.

**Brazilin Merck** (100)

(Brasilin).—Fr. Cæsalpinia echinata, Lam. (Brazil wood), or Cæsalpinia Sappan, L. (Sapanwood).— $\text{C}_{16}\text{H}_{14}\text{O}_5$ .—Sulphur-, yellow cryst.; turns orange in air & light.—*Sol.*, sl. W.; easily A., E.—*Antipyr.*—*Uses*: *Techn.*, chiefly as a dye; also as indicator in volumet. analysis; solut. gives w. acids a yellow color, changed by alkalis to bluish-violet.—*Caut.* Keep well stoppered, fr. air & light.

**Brazilin Paper**

(Pernambuco, or Fernambuco, Paper).—Wh. paper, charged w. brazilin.—*Uses*: Indicator (acids=yellow; alkalis=bluish-violet).—*Caut.* Keep in dark.

**Bremen Blue.**—see Copper Carbonate, Blue

**Bremen Green.**—see Copper Carbonate, Green

**Brenzcin** (75)

(Guaiacolbenzyl-ester Merck; Pyrocatechin-methylbenzyl-ester Merck).— $\text{OCH}_3\cdot\text{C}_6\text{H}_4\cdot\text{OCH}_2\cdot\text{C}_6\text{H}_5$ .—Colorl. cryst.—*Sol.* A., E.; vasogen.—*Melt.* 62° C.—Local Anesth.—*Uses*: Cataphoresis of cocaine hydriodide. Possesses all the advantages of guaiacol without causticity of latter.—*Caut.* Do not confound w. benzosol (guaiacolbenzoic-acid ester).

**Brilliant Black B Merck.**—Alcohol-Soluble (7

(Naphthol Black).—Sodium salt of disulphon-amidoazonaphthaleneazobetanaphtholdisulphonic acid.—Blue-black powd.—*Sol.* W. & A. w. violet color.—*Uses*: Dyeing wool.

**Brilliant Cotton Blue.**—see Methyl Blue

**Brilliantcroceine Merck** (6)

Sodium salt of amidoazobenzeneazobetanaphtholdisulphonic acid.—Light-brown powd.—*Sol.* W., w. cherry-red color.—*Uses*: Manuf. pigments.

**Brilliant Green Merck** (8)

(Malachite Green, G.; Diamond Green, G.; Fast Green, J.; Ethyl, Emerald, Solid, or New Victoria, Green; Tetraethyldiparamidodiphenylcarbydride Sulphate).—Glist., golden cryst.—*Sol.* W., A.—*Uses*: Dyeing silk, wool, leather,

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



jute, & cotton yellowish green, green ink; also for blue ink or stain, mixed w. equal wt. Hoffmann's violet

*Brimstone*.—see Sulphur

**Bromacetanilide (Mono-) Merck** (20)

(Monobromated Acetanilide; Monobromphenylacetamide; Bromanilide; Bromantifebrin; Aqum; Antiseptin).—Fr. acetanilide in glacial acetic acid, by bromine.  $C_8H_7BrNO$ , or,  $C_8H_7BrNH(C_2H_5O)$ .—Wh. cryst.; odor: taste. —*Sol.* A, E; sl. in G. —*Melt.* 164° C. —*Anal.* Analg.; Antipyret.; Antisept. —*Uses:* Neuralg., rheumat., pneum., typh. fever, phth. —*Extern.* wounds; oint. or supposit. in piles. —*Dose* 1-8 grains (0.06-0.5 Gm.).

**Bromal Merck.**—Anhydrous (15)

(Tribromacetalddehyde).—Fr. alc., by bromine.  $C_2Br_3HO$ , or,  $C_2Br_3CHO$ .—Yellowish liq.; forms hydrate with W. —*Sol.* A, E. —*Sp. Gr.* 2.30 at 15° C. —*Boil.* 174° C. w. decomp.

**Bromal Hydrate Merck.**—Cryst. (30)

Fr. bromal & water.  $C_2Br_3COH.H_2O$ , or,  $C_2Br_3COH(OH)_2$ , or,  $C_2H_3Br_3O + H_2O$ . —Wh., deliq. cryst.; chloral odor; pung. taste. —*Sol.* W., A., E., C., G. —*Melt.* 53° C. —Antispasmod.; Sed.; Hypn. —*Uses:* Epilepsy, chorea, & insom.; chemically as alkaloidal reagent. —*Dose* 3-15 grains (0.2-1 Gm.), in solut. —*Incomp.*, alkaloids.

**Bromalbacide**

Yellowish-wh. powd. —*Sol.* W. —*Uses:* Instead of the usual bromides. —*Dose* 8 grains (0.5 Gm.).

**Bromalin Merck** (25)

(Bromethylformin Merck; Hexamethylenamine Bromethylate Merck). — $C_6H_{12}N_4C_2H_5Br$ . —Colorl. cryst. —*Sol.* W. —*Melt.*, abt. 200° C. —Nerve Sed.; Antiepilept. —*Uses:* As substitute for potass. bromide; causes no bromism. —*Dose* 30-60 grains (2-4 Gm.) several t. p. d., in wafers or sweet. water.

**Bromamide** (400)

(Tribromaniline Hydrobromide). — $C_6H_5Br_3N$ , or,  $C_6H_4Br_3.N.HBr$ . —Colorl., odorl., tastel. need. —*Sol.* C, E, oils, hot A.; insol. W. —*Melt.* 117.2° C. —*Volat.* 154.4° C. —Antipyret.; Antirheum.; Analg. —*Uses:* Rheum. fever, chr. artic. rheum., neuralg. & nephrit. dropsy. —*Dose*, abt. 10 grains (0.6 Gm.) several t. p. d.

**Bromamylene Merck** (10)

(So-called "Amylene Bromide"). — $C_5H_8Br$ . —Colorl. to yellowish liq. —*Boil.* 100-110° C., with decomp. —*Sp. Gr.* 1.55 at 15° C.

*Bromanilide.* ) —see Bromacetanilide, Mono-  
*Bromantifebrin.* )

*Bromdiethylacetamide.*—see Neuronal

**Bromelia Merck** (25)

(Betanaphthylethylester). — $C_{10}H_7OC_2H_5$ . —Colorl. cryst. —*Sol.* A, E, C.; insol. W. —*Melt.*

38° C. —*Uses:* Perfumery, because of its fine, anise-like odor.

*Bromosine.*—see Eosine Yellowish

*Bromthylformin.*—see Bromalin

**Bromine Merck** (1)

Halogen element —*Etymol.*: Fr. Grk. "bromos," stench. Because of its odor, Gay-Lussac gave the name "bromine" to the element discovered by Balard in 1826. —Br.—Very dark reddish-brown liq.; solid at minus 7° C.; v. irrit. vapor, oxid'g org. bodies. —*Sp. Gr.* 2.99-3.0 at 15° C. —*Sol.*, solut. alkali bromides, C, 28 W. at 25° C.; eas. A. or E., & in  $CS_2$ . —*Boil.* 63° C. —Alter.; Lymph. Stim.; Caustic; Stim. Antisept. —*Uses:* Intern., laryng., diphth., or membr. croup, bronchocele, scrof. tumors, syphilis, &c. —*Extern.*, gangrene, uter. cancer, chancreoids, hemorrhoids. —*Techn.*, Dentistry & photography; parting (gold & silver) & smelting works; rendering water germ-free for drinking (0.2 Ce. of a solut. of 100 Ce. W., 20 Gm. KBr, & 20 Gm. Br., per liter of W., the excess of Br. being removed after 5 minutes by adding 0.2 Ce. of 9% ammonia water). —*Dose* 1-3 m (0.06-0.2 Ce. well dil. —*Appl.*: Caust., pure or in 1:1-3 A. or G.; antisept., 0.25-1% washes or oily paints. —*Inhalat.*, solut. bromine & potass. bromide 3 grains (0.2 Gm.) each in 3 1/3 fl. oz. (100 Ce.) W. as spray in diphth. & croup. —*Antid.*, inhal. of ammonia; stomach irrigation; albumin; sodium carbonate or bicarbonate. —*Incomp.*, alkali hydroxides, arsenites, ferrous salts, hypophosphites, hydriodic acid, mercurous salts. —*Caution*, Poison! Burns & blisters if strong. Keep sealed, glass stoppered. When handling bromine, always keep ammonia W. within reach.

do. Merck.—Free fr.  $H_2SO_4$  (2)

do. Merck.—Solidified

(Bromkieselguhr).—Thin sticks (abt. 150 = 1 kilo). —Contains abt. 75% Br. —*Uses:* Disinf. & deodor. —*Techn.*, in parting (gold & silver) & smelting works, & in photogr.

do. —Solution.—N. F.

(Smith's Solution Bromine). —25 Gm. Br, 12.5 Gm. KBr, & 100 Ce. W.

**Bromine Merck.**—Reagent (3)

Br.—Dark-red, alm. black liq. —*Sol.*, abt. 30 W.; eas. A, E, C,  $CS_2$ . —*Sp. Gr.* 2.97-2.99. —*Boil.* 63° C. —*Tests:* (Res.) evap. 5 Gm. in porcel. dish on W.-bath — none wghble. —( $H_2SO_4$ ; Cl; Organ. Br Compounds [Bromoform;  $CBr_3$ ]) 5 Gm. + 100 Ce.  $H_2O$  + 20 Ce.  $NH_4OH$  (sp. gr. 0.96) by drops —perf. clear solut. Evap. solut. to dryness & test result. res. of  $NH_4Br$  for, a: ( $H_2SO_4$ ) 2 Gm. res. + 60 Ce.  $H_2O$  + 1 Ce.  $HCl$  (sp. gr. 1.124) + solut.  $BaCl_2$  — no ppt. ( $BaSO_4$ ) within 12 hrs.; & for b: (Cl) 0.1 Gm. res. + 10 Ce.  $H_2O$  + 4 Ce. solut. ammon. carb. (1 ammon. carb., 1  $NH_4OH$  [sp. gr. 0.96], & 311.0) + 12 Ce. decinorm.  $AgNO_3$ ; filter; acidul. w.  $HNO_3$  — only sl. turb. —(I) 1 Gm. + 40

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



Ce.  $\text{H}_2\text{O} + 1$  Gm. powd. Fe; shake 2-3 min.; filter; add solut. starch to filtrate, & let few drops Br-water cautiously flow on surface—no innmed. blue zone below yellowish upper portion of liquid.—*Uses*: Oxidizer; determ. S, phenol, nitrogen, Pb, Mn, & urea.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### Bromine Chloride Merck (10

(Chlorine Bromide).— $\text{BrCl}$  (only below  $10^\circ\text{C}$ ).—Reddish-yellow, mobile, v. volat. liq.; vapors irrit. eyes. Begins to lose chlorine at  $10^\circ\text{C}$ .—*Caustic*.—*Uses*: In cancer, both intern. & extern.—*Caut.* Vapors irritating. Keep well stoppered.

### Bromine Iodide.—see Iodine Monobromide

### Bromine Water Merck.—Reagent (1

Sat., aqu. solut.; abt. 3% Br.—*Tests*: ( $\text{H}_2\text{SO}_4$ ) 50 Ce. + 1 Ce.  $\text{HCl}$  (sp. gr. 1.124) + solut.  $\text{BaCl}_2$ ; boil until Br all expelled—no ppt. ( $\text{BaSO}_4$ ) within 1 hr.—*Uses*: Oxidizer, particularly for S; detect. phenol, uric acid, &c.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### Bromipin.—10% (3

(10% Brominized Sesame Oil Merck).—Bromine addition prod. of sesame oil.—Yellow, oily liq.; purely oleag. taste; contains 10% Br.—*Nervine*; *Sedat.*—Very efficient succed. for bromides, even in small doses; rarely occasions bromism.—*Uses*: Epilepsy, neurasth., nervous cardiac disturbances, muscular twitchings, insomnia, headaches, seasickness, &c.—*Doses*: Teaspoonf. 3-4 t. p. d.; in epilepsy, 2 teaspoonf. 3-4 t. p. d., in enails. w. peppermint W. & syrup; or pure, flavored w. peppermint oil.

### do.—33 $\frac{1}{3}$ % (10

(33 $\frac{1}{3}$ % Brominized Sesame Oil Merck).—*Uses*: As of preceding, & in proportionate doses.

### Bromobenzol, Mono.—see Benzene, Monobromo-

### Bromocamphor.—see Camphor Monobromated

### Bromocoll (15

(Gelatin-dibromotannate).—20% Br.—*Sol.*, dil. alkalies; insol. W., A.—*Sedat.*—*Uses*: As of the alkaline bromides.—*Extern.*, in pruritus & ecz. (usually as 20% bromocoll-resorbin = "bromocoll ointment").—*Dose* 15-75 grains (1-5 Gm.).

### Bromoform Merck.—Highest Purity, Medicinal (3

(Tribromomethane; Methenyl Tribromide; so-called "Formyl Tribromide").—Fr. acetone w. bromine.— $\text{CHBr}_3$ .—Colorl., heavy liq.; odor & taste like that of chlorof.—*Sp. Gr.* 2.829-2.833 at  $15^\circ\text{C}$ ; (U. S. P., 2.808 at  $25^\circ\text{C}$ ).—*Sol.* A.,

E.; abt. 80 G.; alm. insol. W.—*Solidif.*  $6^\circ\text{C}$ . (U. S. P.).—*Boil.* 118-150° C.—*Anesth.*; *Nervine*; *Sed.*—*Uses*: Chiefly whoop-cough; not safe as anesthetic.—*Doses* 2-20 drops in hydro-alcoh. solut. or emuls. Children, as many drops as age in years, 3 to 5 t. p. d.; babies, 1-2 drops, 2 to 4 t. p. d.—*Max. D.* 8 m (0.5 Ce.) single; 23 m (1.5 Ce.) daily.—*Antid.*, as of chloroform.—*Incomp.*, caustic alkalies.—*Caut.* Keep well stoppered.

*Note*.—The ordinary bromoform deteriorates very rapidly; this article, however, is correctly & carefully made, & is hence much more reliable.

### Bromo-hemol.—see Hemol, Bromo-

### Bromol.—see Tribromophenol

### Bromomalonic-Acid Diethyl-ester.—see Ethyl Bromomalonate

### Bromomethane.—see Methyl Bromide

### Bromopyrine Merck (100

(Monobromantipyrine).— $\text{C}_{11}\text{H}_{11}\text{BrN}_2\text{O}$ .—Wh. cryst.—*Sol.* A., C., hot W.—*Melt.*  $111^\circ\text{C}$ .—*Antipyr.*; *Antisep.*—*Dose*: As of antipyrine.—*Caut.* Not to be confounded with the mixt. of caffeine, antipyrine, & sod. bromide also known as "bromopyrine."

### Bromoquinol (25

(Acid Quinine Dibromosalicylate).— $\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_2 \cdot 2(\text{C}_6\text{H}_2\text{Br}_2\text{O}_4\text{HCOOH})$ .—Yellowish cryst.—*Sol.*, diffie. W., A., E.—*Melt.* 197-198° C.—*Antipyr.*—*Dose* 10-12 grains (0.6-0.75 Gm.) 2 t. p. d.

### Bromotan

(Bromotannin-methyleneurea).—Light-brown, odorl., tastel. powd.—*Uses*: Cutan. eruptions, itch, hives, &c.—*Appl.* 10% oint. or dust. powd.

### Bromotannin-methyleneurea.—see Bromotan

### Brooklime.—see Beccabunga

### Broom.—see Genista; Scoparius

### Broussonetia Tinctoria.—see Morus Tinctoria

### Brucine Merck.—Highest Purity, cryst. (35

Alkaloid fr. Nux-vomica & Ignatia seeds.— $\text{C}_{25}\text{H}_{20}\text{N}_2\text{O}_4 + 4\text{H}_2\text{O}$  (or  $2\text{H}_2\text{O}$ ).—Wh. cryst.—*Sol.* A., C.—*Melt.*  $105^\circ\text{C}$ , hydrated;  $178^\circ\text{C}$ , anhydrous.—*Nerve Tonic* like strychnine, but much milder ( $\frac{1}{6}$  as powerful).—*Dose*  $\frac{1}{12}$ - $\frac{1}{2}$  grain (0.005-0.03 Gm.), with care, in pills or solution.—*Max. D.*  $\frac{3}{4}$  grain (0.05 Gm.), single; 3 grains (0.2 Gm.), p. day.—*Antid.*, hydrated chloral; chloroform; tannic acid.

### do. Merck.—Cryst. (25

Cont. trace of strychnine.

### Brucine Merck.—Reagent (40

$\text{C}_{25}\text{H}_{20}\text{N}_2\text{O}_4 + 2\text{H}_2\text{O}$ .—Sm., wh. cryst.—*Sol.*, diffie. cold, more eas. boil. W.; cas. in 85% A., C.; aqu. solut. alkali. to litmus paper, & levogyr.—*Melt.*  $178^\circ\text{C}$ , when dried at  $100^\circ\text{C}$ .—*Tests*: (W. of Cryst.) dry 1 Gm. at  $100^\circ\text{C}$  to constant

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

wt. loss not greater than 0.083 Gm.—*HNO*<sub>3</sub>) 0.01 Gm. + 5 Cc. conc. *H*<sub>2</sub>*SO*<sub>4</sub>. Solut. colorl., or at most a scarcely percept. pink.—(*Stychnina*) 0.5 Gm. + 5 Gm. abs. alc. A., shake frequently for 1 hr., & filter; transfer portion of undiss. subst. to watch-glass, allow to dry, then diss. in few drops conc. *H*<sub>2</sub>*SO*<sub>4</sub>, & add a sm. cryst. *K*<sub>2</sub>*Cr*<sub>2</sub>*O*<sub>7</sub>—no play of colors fr. blue through violet & red to green.—*Uses*. Detect & determin. nitric acid in drinking water & elsewhere.

*Note*—For complete tests see "Chemical Reagents, Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## Brucine Hydrobromide Merck (40

*C*<sub>23</sub>*H*<sub>26</sub>*N*<sub>2</sub>*O*<sub>4</sub>·*HBr*. Sm., wh. cryst.—*Sol.* W., A.—*Uses, Doses, &c.*: As of alkaloid; but preferable, because more soluble.

## Brucine Hydrochloride Merck (30

*C*<sub>23</sub>*H*<sub>26</sub>*N*<sub>2</sub>*O*<sub>4</sub>·*HCl*. Sm., wh. cryst.—*Sol.* W., A.—*Uses & Doses*: As of brucine.

## Brucine Nitrate Merck (30

*C*<sub>23</sub>*H*<sub>26</sub>*N*<sub>2</sub>*O*<sub>4</sub>·*HNO*<sub>3</sub>·3*H*<sub>2</sub>*O*. Wh. cryst.—*Sol.* W., A.—*Uses & Doses*: As of brucine.

## Brucine Phosphate Merck (35

(*C*<sub>23</sub>*H*<sub>26</sub>*N*<sub>2</sub>*O*<sub>4</sub>)<sub>2</sub>·*H*<sub>3</sub>*PO*<sub>4</sub>. Wh., cryst. powd.—*Sol.* W., A.—*Uses & Doses*: As of brucine.

## Brucine Sulphate Merck (35

(*C*<sub>23</sub>*H*<sub>26</sub>*N*<sub>2</sub>*O*<sub>4</sub>)<sub>2</sub>·*H*<sub>2</sub>*SO*<sub>4</sub>·3(*H*<sub>2</sub>*O*).—Sm., wh. cryst.—*Sol.* W., A.—*Uses & Doses*: As of brucine.

## Brücke's Reagent.—For glucose

Solut. freshly precipitated bismuth subnitrate in hot aq. solut. *KI* acidulated w. dil. *HCl*.—Gives w. glucose a brown to black ppt.

## Brunfelsia.—see Manaca

## Brunswick Green.—see Copper Carbonate, Green

## Bryonia

(Bryony).—Root of *Bryonia alba*, L.; & *B. dioica*, L. Cucurbitaceæ.—*Habit.*: Europe.—*Etymol.*: Grk. "bryein," to grow, to sprout, referring to its luxuriant growth.—*Constit.*: Bryonin, resin.—*Purgat.*: Emmen.; Vesicant; Emet. (large doses).—*Uses*: In dropsy as a hydragogue cathart.—*Doses*: 10–60 grains (0.6–4 Gm.).—*Alcoh. extr.*, 2–6 grains (0.12–0.4 Gm.) several t. p. d.—*Fld. extr.*, 10–60 ℥ (0.6–1 Cc.).—*Tinct.*, 1–2 fl. dr. (4–8 Cc.).

## Bryonin Merck (215

Glucoside fr. root *Bryonia alba*, L.; & *B. dioica*, L.—*C*<sub>6</sub>*H*<sub>10</sub>*O*<sub>19</sub>(?).—Amorph., brownish-yellow, bitter powd.—*Sol.* W., A.—*Cathart.*—*Uses*: Hepat. congest., & in conditions following acute infect. dis.; also in chronic inflammatory condit. of serous membranes.—*Dose*  $\frac{1}{60}$  grain (0.001 Gm.) every 2 hrs. until catharsis.

## Bryonin Tannate Merck (300

Brownish gray powd.—*Sol.* A.—*Uses*. As of bryonin.

## Bryony.—see Bryonia

## Bucco.—see Buchu

## Buchu.—U. S. P.

(Bucco; Bucku; Buku).—Dried lvs. of *Barosma betulina*, Barth. & Wendl.; & *B. crenulata*, Hooker. Rutaceæ.—*Habit.*: Southern Africa (Cape of Good Hope).—*Etymol.*: Buchu fr. "bucco," the South African name of the plant. "Barosma" fr. Grk. "baros," heavy, & "osme," odor, i.e., strong odor. "Betulina" fr. Celtic "betu," beech, i.e., the lvs. resemble those of the beech. "Crenulata" fr. Lat. "crenatus," notched, fr. character of lvs.—*Constit.*: Diosphenol (barosma camphor), *C*<sub>11</sub>*H*<sub>22</sub>*O*<sub>3</sub>; diosmin; bitter extractive; volat. oil; resin; mucilage; hesperidin; rutin(?).—*Diuret.*; *Tonic*; *Stim.*; *Diaphor.*—*Uses*: Chiefly in genito-urinary dis.—*Doses*: 15–60 grains (1–4 Gm.) in infus. or tinct.—*Alcoh. extr.* (solub. in A.), 5–10 grains (0.3–0.6 Gm.).—*Fld. extr.*, 15–60 ℥ (1–4 Cc.).—*Comp.* *fld. extr.*, abt. 20–60 ℥ (1.3–4 Cc.).

## Buchu Resin.—see Barosmin

## Buckbean.—see Menyanthes

## Buckeye.—see Æsculus Glabra

## Buckthorn.—see Frangula; Rhamnus Cathartica

## Bugleweed.—see Lycopus

## Bugloss.—see Anchusa

## Bulbocapnine Merck.—Cryst. (1500

Princip. alkaloid fr. tubers of *Corydalis cava*.—*C*<sub>19</sub>*H*<sub>19</sub>*NO*<sub>4</sub>.—Wh., cryst. powd.—*Sol.* A., C.—*Melt.* 199° C.

## Bulbocapnine Hydrochloride Merck (1400

*C*<sub>19</sub>*H*<sub>19</sub>*NO*<sub>4</sub>·*HCl*.—Wh., cryst. powd.—*Sol.*, hot W.; less sol., cold W.

## Bumble-berry.—see Rubus Fruticosus

## Bupleurum

(Hare's-Ear; Thorough-wax; Thoroughwort; Modesty; Herba Perfoliata).—Herb of *Bupleurum rotundifolium*, L. Umbellifera.—*Habit.*: Europe; western Asia; natur. in U. S.—*Etymol.*: Grk. "bous," ox, & "pleuron," rib, i.e., ox-ribbed, referring to the lvs. Lat. "rotundus" & "folium," i.e., round-leaved. Lat. "per," through, & "folium," leaf, i.e., the leaf is united around its stem at its base.—*Vulnerary*.—*Uses*: Resolvent applic. in goiter, hernia, &c. Now obsolete.

## Buranhem.—see Monesia Bark

## Burdock.—see Lappa

## Burgundy Pitch.—see Pitch, Burgundy

## Burnt Lime.—see Calcium Oxide

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Burnt Sugar.*—see **Caramel**

*Bursa Pastoris.*—see **Capsella**

# Bursin

Astringent fr. herb *Capsella Bursa-pastoris*, Moench.—Yellow, deliq. powd.—Astring.; Tonic; Styp.—*Uses.*: Inst. of ergot, hypoderm., in intern. hemorrhage.

*Butler of Antimony.*—see **Antimony Chloride, Antimonous, Solution**

*Butler of Arsenic.*—see **Arsenic Chloride**

*Butler Cacao.*—see **Oil Theobroma**

*Butler Yellow.*—see **Dimethylamidoazobenzene**

*Butler of Zinc.*—see **Zinc Chloride**

*Buttercup Yellow.*—see **Zinc Chromate**

*Butternut.*—see **Juglans**

*Button Bush or Buttonweed.*—see **Cephalanthus**

*Button Snakeroot.*—see **Eryngium**

# Butyl-Chloral Merck (45)

("Croton" Chloral;  $\alpha$   $\beta$ - Trichlorobutyraldehyde; Anhydrous Butyl Chloral; Butyr-chloral).—Fr. acetic aldehyde, by chlorine.— $C_4H_5Cl_3O$ , or,  $CH_3CHCl.CCl_2CHO$ .—Colorl., oily liq.—Sp. Gr. 1.395 at 20° C.—Unites w. water to butyl chloral hydrate.—*Sol.* W., A., E.—*Boil.* 165° C.

# Butyl-Chloral Hydrate Merck (7)

("Croton" Chloral, or Butyr-chloral, Hydrate).—Fr. anhyd. butyl chloral, by W.— $C_4H_9O_2Cl_3$ , or,  $CH_3CHCl.CCl_2CHO + H_2O$ .—Light, wh., shin., cryst. scales; pung. odor.—*Sol.*, readily A., G., E.; sl. W.; insol. C.—*Melt.* 78° C.—*Anal.*; Hypn.; Teniaf.—*Uses.*: Trigem. neural., toothache, &c., insom. of heart dis.—*Appl.*, w. eq. parts phenol.—*Doses.*: Hypn., 15–30 grains (1–2 Gm.); analg., 3–7 grains (0.2–0.4 Gm.) every  $\frac{1}{2}$  hr. till relieved, or 15–20 grains (1–1.3 Gm.) at longer intervals.—*Max. D.*, abt. 45 grains (3 Gm.), single; 60 grains (4 Gm.) daily.—*Antid.*, stomach siphon, picrotoxin, atropine, strychn., caffeine, artif. respir.

# Butyl Iodide Merck (400)

(Secondary Normal Butyl Iodide).—Fr. erythrite, by distil. w. hydriodic acid.— $C_4H_9I$ , or,  $CH_3C_2H_5CH_2I$ .—Colorl. liq.; turns brown on expos. to light.—Sp. Gr. 1.626 at 0° C.—*Boil.* 118° C.—*Caut.* Dark amber, well-stop'd bot.

# Butyl (Iso-) Acetate Merck (8)

(Acetic Isobutylester).—Fr. potass. isobutylsulphate, by distil. w. potass. acetate.— $C_6H_{12}O_2$ , or,  $C_4H_9C_2H_3O_2$ .—Transp., colorl. liq.—Sp. Gr. 0.8921 at 0° C.—*Boil.* 116° C.

# Butyl (Iso-) Benzoate Merck (9)

$C_{11}H_{14}O_2$ , or,  $C_4H_9C_7H_5O_2$ .—Liq.—Sp. Gr. 1.002 at 15° C.—*Sol.* A.—*Boil.* 237° C.

# Butyl (Iso-) Bromide Merck (20)

$C_4H_9Br$ , or,  $(CH_3)_2CH.CH_2Br$ .—Colorl. liq.—Sp. Gr. 1.260 at 15° C.—*Sol.* A.—*Boil.* 91–92° C.

# Butyl (Iso-) Butyrate Merck (8)

(Isobutyl Normalbutyrate; Isobutyric Ester of Normal Butyric Acid).— $C_8H_{16}O_2$ , or,  $CH_3CH_2CH_2COO.CH_2CH(CH_3)_2$ .—Colorl. liq.—Sp. Gr. 0.866 at 15° C.—*Sol.* A.—*Boil.* 156° C.

# do. Merck.—Highest Purity (30)

# Butyl (Iso-) Butyrate (Iso-) Merck (40)

(Isobutyl Isobutyrate; Isobutyric Ester of Isobutyric Acid).— $C_8H_{16}O_2$ , or,  $(CH_3)_2CH.COO.CH_2CH(CH_3)_2$ .—Colorl. liq.—Sp. Gr. 0.875 at 0° C.—*Sol.* A.—*Boil.* 146° C.

# Butyl (Iso-) Carbamate Merck (50)

(Isobutyl Ester of Carbamic Acid).—Fr. isobutyl ester of chloroformic acid, by amm.— $C_5H_{11}NO_2$ , or,  $NH_2COOCH_2CH(CH_3)_2$ .—Colorl. cryst.—*Sol.* A., E.; insol W.—*Melt.* 55° C.—*Boil.* 207° C.

# Butyl (Iso-) Chloride Merck (8)

Fr. isobutyl alc., by hydrochl. acid or phosph. pentachloride.— $C_4H_9Cl$ , or,  $(CH_3)_2CH.CH_2Cl$ .—Colorl. liq.—Sp. Gr. 0.880 at 15° C.—*Sol.* A.—*Boil.* 69° C.

# Butyl (Iso-) Formate Merck (40)

(Teteryl Formate).—React.-prod. silver formate w. teteryl iodide.— $HCOOCH_2CH(CH_3)_2$ .—Colorl. liq.—*Sol.* A.—*Boil.* 100° C.

# Butyl (Iso-) Iodide Merck (80)

Fr. isobutyl alc., by hydriodic acid.— $C_4H_9I$ , or,  $(CH_3)_2CH.CH_2I$ .—Colorl. liq.—Sp. Gr. 1.640 at 0° C.—*Sol.* A.—*Boil.* 120° C.

# Butyl (Iso-) Nitrate Merck (50)

Fr. isobutyl iodide, by urea w. silver nitrate.— $C_4H_9NO_3$ , or,  $(CH_3)_2CH.CH_2NO_3$ .—Colorl. liq.—Sp. Gr. 1.015 at 20° C.—*Sol.* A.—*Boil.* 123° C.

# Butyl (Iso-) Nitrite Merck (30)

By distil. tertiary butyl iodide w. silver nitrite.— $(CH_3)_2CH.CH_2NO_2$ .—Yellowish liq.—*Sol.* A.—*Boil.*, abt. 67° C.

# Butyl (Iso-) Phenate Merck (100)

$C_{10}H_{14}O$ , or,  $C_4H_9.C_6H_5OH$ .—Colorl. liq.—*Sol.* A., E., C.—Sp. Gr. 0.935 at 15° C.—*Boil.* 198° C.—*Antisep.*

# Butyl (Iso-) Propionate Merck (60)

(Isobutyl Ester of Propionic Acid).— $C_7H_{14}O_2$ , or,  $C_2H_5COO.CH_2CH(CH_3)_2$ .—Colorl., transp. liq.; agre. ether. odor.—Sp. Gr. 0.893 at 0° C.—*Sol.* A.—*Boil.* 136–137° C.

# Butyl (Iso-) Sulphocyanate Merck (150)

(Isobutyl Rhodanide; Isobutyl Ester of Sulphocyanic Acid).— $C_5H_9SN$ , or,  $C_4H_9SCN$ .—Colorl. liq.—*Misc.* A.—*Boil.* 175° C.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Butyl (Iso-) Valerate Merck** (8)  
(Isobutyl Ester of Valeric Acid).— $C_9H_{18}O_2$ , or,  $C_4H_9C_5H_9O_2$ .—Colorl., transp. liq.; ether odor.—*Sol.* A.

**Butylamine (Iso-) Merck** (200)  
(Primary Isobutylamine).—By heat, isobutyl-chloride w. ammonia.  $C_4H_{11}N$ , or,  $(CH_3)_2CHCH_2NH_2$ .—Colorl., transp. liq.—*Sol.* A., W.—*Sp. Gr.* 0.736 at 15° C.—*Boil.* 66° C.

**Butylene (Beta-) Bromide Merck** (75)  
(Pseudobutylene Bromide; Symmetrical Dimethylethylene Bromide).— $C_4H_8Br_2$ , or,  $CH_3CHBrCHBrCH_3$ .—Yellowish liq.—*Sol.* A.—*Sp. Gr.* 1.821 at 0° C.—*Boil.* 158° C.

**Butylene Hydrate.**—see **Alcohol Butylic, Secondary**

**Butylene (Iso-) Bromide Merck** (60)  
(Dibromoisobutane).—Fr. isobutylene, by bromine.— $C_4H_8Br_2$ , or,  $(CH_3)_2CBrCH_2Br$ .—Yellowish liq.—*Sp. Gr.* 1.798 at 15° C.—*Boil.* 149° C.

**Butyramid Merck** (100)  
(Normal Butyramid).— $CH_3CH_2CH_2CONH_2$ .—Wh. cryst.—*Melt.* 115° C.—*Sol.* W.—*Boil.* 216° C.

**Butyr-chloral Hydrate.**—see **Butyl-Chloral Hydrate**

**Butyric Anhydride.**—see **(Acid) Butyric Anhydride, Normal**

**Butyric Merck** (160)  
(Tributyryl; Glycerin Tributryryl).—Fr. monobutyryl, by butyric acid w. heat.  $C_{15}H_{26}O_6$ , or,  $C_3H_7(C_4H_9O_2)_3$ .—Yellowish liq.—*Sp. Gr.* 1.052 at 22° C.—*Sol.* A., E.

**Butyryne.**—see **Dipropylketone**

**Butyryl Chloride Merck** (40)  
(Normal Butyric Chloride).—Fr. butyric acid, by  $PCl_3$ .— $C_4H_7OCl$ , or,  $C_3H_7COCl$ .—Colorl. liq.—*Sp. Gr.* 1.027 at 20° C.—*Boil.* 101° C.

**Butyryl (Iso-) Chloride Merck** (30)  
(Isobutyric Acid Chloride).— $(CH_3)_2CHCOCl$ .—Colorl. liq.—*Sp. Gr.* 1.0174 at 20° C.—*Boil.* 92° C.

**Butyryl Oxide.**—see **(Acid) Butyric Anhydride, Normal**

**Buxine.**—see **Bebeerine**

## C

**Cabbage-Tree Bark.**—see **Andira**

**Cacao Buller.**—see **Oil Theobroma**

**Cacao Shell**

(Theobroma Shells; Cocoa Shells).—Shells of the seed of Theobroma Cacao, L. Sterculiaceae.—*Habit.*: South America (Brazil, Cent. America); Mexico; West Indies; most tropical countries.—*Etymol.*: Fr. Mexican "cacaual," or "kaka-huati," the native name of the tree.—Thin,

papery, reddish-brown, concavo-convex shells; weak chocolate-like odor & taste.—*Condit.*: Theobromine; caffeine; cacao-red.—*Uses*: As diuretic tea.

**Cachew Nut.**—see **Anacardium; Semecarpus**

**Cactus.**—see **Cereus**

**Cadaverine.**—see **Pentamethylenediamine**

**Cadmium Merck.**—Sticks, ribbon, or powder (2

*Etymol.*: Fr. "cadmia," the Grk. name for galnei (a native zinc carbonate), in which cadmium was discovered in 1818 by Hermann & Strohmeyer.—Cd.—Silver-wh., lustr., blue-tinged bars, ribbons, &c., or light-gray powd.; sl'y harder than zinc; v. mall. duct. & flex.—*Sp. Gr.* 8.604.—*Sol.*, dil. min. acids.—*Melt.* 320° C.—*Uses*: Preparation of readily fusible alloys, pigments, & medicinal preparations; coating metals; for precipitating copper instead of the more impure zinc in the test for the quartation of gold, &c.

**Cadmium Acetate Merck** (8)

$Cd(C_2H_3O_2)_2 + 3H_2O$ .—Colorl., deliq. cryst.—*Sol.* W.—*Incomp.*, caustic alkalies.—*Caut.* Keep well stoppered.—*Uses*: In dental techn.

**Cadmium Borotungstate Merck** (60)

$2CdO \cdot B_2O_3 \cdot 9WO_3 + 18H_2O$ .—Deliq., yellow cryst.—*Sol.*, eas. W.

**do. Merck.**—Solution (20)

(See also Klein's Reagent.)

**Cadmium Borotungstate Merck.**—Reagent.—Solution (30)

Clear, yellowish or light-brown liq.—*Sp. Gr.* 3.28.—*Uses*: Mechanically separ. minerals.

**Cadmium Bromide Merck.**—Anhydrous (9)

By heating cadmium to redness in bromine vapor.— $CdBr_2$ .—Yellowish, cryst. powd.—*Sol.* A., E.—*Uses*: Techn.

**do. Merck.**—Hydrated (2)

$CdBr_2 + 4H_2O$ .—Colorl. need.; efflor. rapidly on expos.—*Sol.* W., A., E.—*Uses*: In photography.—*Caut.* Keep well stoppered.

**Cadmium Carbonate Merck** (10)

$CdCO_3$ .—Wh., amorph. powd.—*Sol.*, dil. acids.

**Cadmium Chlorate Merck** (15)

$Cd(ClO_3)_2$ .—Colorl. cryst.—*Sol.* W.—*Caut.* Keep well stoppered.

**Cadmium Chloride Merck.**—Pure (4)

$CdCl_2 + 2H_2O$ .—Sm., wh. cryst.—*Sol.* W., A.—*Uses*: Photography, dyeing, & calico printing; also as a test for pyridine bases.

**do. Merck.**—Anhydrous (12)

**Cadmium Formate**

$Cd(HCO_2)_2 + 2H_2O$ .—Wh. prisms.—*Sol.* W.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Cadmium Hydroxide Merck** (15)  
(Cadmium Hydrate).— $\text{Cd}(\text{OH})_2$ .—Wh., amorphous, solid or powd.—*Sol.*, amm., & acids.

**Cadmium Iodate Merck** (5)  
 $\text{Cd}(\text{IO}_3)_2$ .—Wh., cryst. powd.—*Sol.*, v. sl. hot W.

**Cadmium Iodide Merck** (5)  
 $\text{CdI}_2$ .—Colorl. flaky cryst.—*Sol.* W., A.—Resolvent; Antisep.—*Uses*: Scrof. glands, chronic inflam. joints, chilbl., & skin dis.—*Appl.*, oint. 1 to 8 lard.—*Techn.*, in photography.

**Cadmium Nitrate Merck** (4)  
 $\text{Cd}(\text{NO}_3)_2 + 4\text{H}_2\text{O}$ .—Wh., amorph. pieces, or hygroscop. need.—*Sol.* W., A.—*Uses*: *Techn.*, imparting to glass & porcelain the reddish-yellow cadmium luster; also preparation of cadmium oxide.—*Caut.* Keep well stoppered.

**Cadmium Oxalate Merck** (10)  
 $\text{CdC}_2\text{O}_4 + 3\text{H}_2\text{O}$ .—Fine, wh., cryst. powd.

**Cadmium Oxide Merck** (16)  
 $\text{CdO}$ .—Amorph., dark brown powd.—*Sol.*, acids.

**Cadmium Salicylate Merck** (9)  
 $\text{Cd}(\text{C}_7\text{H}_5\text{O}_3)_2 + \text{H}_2\text{O}$ .—Wh. needles.—*Sol.* W., A.—*Uses*: Like the sulphate as astring. in inflam. of eyes, & in gonorr.—*Appl.* 1:100 solut.

**Cadmium Succinate Merck** (50)  
 $\text{CdC}_4\text{H}_4\text{O}_4$ .—Wh. powd.—*Sol.* A., v. sl. W.

**Cadmium Sulphate Merck** (5)  
 $\text{CdSO}_4 + \text{aq.}$ .—Colorl. cryst.—*Sol.* W., A.—Antisep.; Astring.—*Uses*: *Medic.*, inst. of zinc sulphate in eye washes (1:10 of W.). Rarely used intern. in syph. & rheumat.—*Techn.*, in manuf. of normal cadmium elements in electro-techn.—*Dose*  $\frac{1}{10}$ – $\frac{1}{5}$  grain (0.006–0.012 Gm.).—*Max. D.*  $\frac{1}{2}$  grain (0.1 Gm.) single; 6 grains (0.36 Gm.) daily.

**Cadmium Sulphide Merck.—Light Yellow** (7)  
(Cadmium Yellow; Jaune Brilliant).— $\text{CdS}$ .—Light-yellow powd.—*Sol.*, boil. conc.  $\text{HCl}$ ; insol. W.—*Uses*: Pigment; color for soaps; mixed w. ultramarine for produc. green color; pyrotechn.

**do. Merck.—Orange** (7)  
(Orange Cadmium Sulphide).— $\text{CdS}$ .—Orange-colored powd.—*Sol.*, boil. conc.  $\text{HCl}$ ; insol. W.—*Uses*: As of preceding.

**Cadmium Sulphite Merck** (11)  
 $\text{CdSO}_3$ .—Wh. powd.—*Sol.*, sl. in W.

**Cadmium Tartrate Merck** (15)  
 $\text{CdC}_4\text{H}_4\text{O}_6 + \text{aq.}$ .—Wh., cryst. powd.—*Sol.*, in dil. acids; sl. in W.

**Cadmium Valerate Merck** (25)  
 $\text{Cd}(\text{C}_8\text{H}_9\text{O}_2)_2$ .—Colorl. scales; valerian odor.—*Sol.* W., A.—Antispasmodic.

**Cadmium Yellow.**—see **Cadmium Sulphide, Light Yellow**

**Cadmium & Ammonium Bromide Merck** (12)  
 $\text{CdBr}_2 \cdot 2\text{NH}_4\text{Br} + \text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.* W.

**Cadmium & Ammonium Iodide Merck** (20)  
 $\text{CdI}_2 \cdot 2\text{NH}_4\text{I} + \text{H}_2\text{O}$ .—Colorl. or yellowish cryst.—*Sol.* W.—*Caut.* Keep well stoppered.

**Cadmium & Potassium Cyanide Merck** (12)  
 $\text{Cd}(\text{CN})_2 \cdot 2\text{KCN}$ .—Wh. cryst.—*Sol.* W.

**Cadmium & Potassium Iodide Merck** (18)  
 $\text{CdI}_2 \cdot 2\text{KI} + \text{H}_2\text{O}$ .—Wh., deliq. cryst.—*Sol.* W.

**Cadmium & Potassium Iodide Merck.—Reagent** (25)

Wh. powd.; acquires slight yellowish color on keeping.—*Sol.*, eas. in W., A.—*Tests*: (*Foreign Met.*) a: 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 2 Ce. solut.  $\text{KOH}$ ; filter; filtrate +  $\text{H}_2\text{S}$ —no ppt., even when acidul. w.  $\text{HCl}$ ; b: 1 Gm. + 30 Ce.  $\text{H}_2\text{O}$  + 5 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96)—solut. clear & colorl.—( $\text{H}_2\text{SO}_4$ ) 1:20 aqu. solut. +  $\text{HCl}$  + solut.  $\text{BaCl}_2$ —no turb.—( $\text{HIO}_3$ ) fresh 1:20 solut. prepared w. boiled  $\text{H}_2\text{O}$  + starch solut. + 2–3 drops dil.  $\text{H}_2\text{SO}_4$ —no innued. blue color.—*Uses*: Alkaloidal reagent.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given

**do. Merck.—Reagent.—Solution** (5)

**Casalpinia Echinata.**—see **Pernambuco**

**Caesium Merck.—By Electrolysis** (6000)

Cs.—*Etymol.*: Lat. "caesius," bluish-gray, because it gives two bluish lines in the spectrum. Discovered 1860 by Bunsen & Kirchhoff.—Silver-wh., soft, duct. metal; burns in contact w. W., and inflames in air.—*Melt.* 26–27° C.

**Caesium Alum.**—see **Aluminum & Caesium Sulphate**

**Caesium Bichromate.**—see **Caesium Dichromate**

**Caesium Bisulphate Merck** (240)

(Caesium Disulphate; Acid Caesium Sulphate).— $\text{CsHSO}_4$ .—Rhombic, colorl. prisms.—*Sol.* W.

**Caesium Bitartrate Merck** (160)

(Acid Caesium Tartrate).— $\text{CsHC}_4\text{H}_4\text{O}_6$ .—Wh., rhomb. cryst.—*Sol.* W.—*Uses*: In nervous heart palpitation.—*Dose* 4 grains (0.25 Gm.) 3 t. p. d.

**Caesium Bromide Merck** (200)

$\text{CsBr}$ .—Colorl. cryst. powd.—*Sol.* W.—*Uses* & *Dose*: As of caesium bitartrate.

**Caesium Carbonate Merck** (240)

(Normal Caesium Carbonate).— $\text{Cs}_2\text{CO}_3$ .—Wh., deliq. cryst. powd.—*Sol.* W., A.—*Uses*: Brewing & in manuf. mineral waters.

**Caesium Chloride Merck** (240)

$\text{CsCl}$ .—Colorl. cryst.—*Sol.* W., A.—*Uses*: Brewing, & in manuf. mineral waters.

**Comparative Values** (see *Preface*, page v): 1= Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

- Caesium Cyanide Merck** (300)  
 $\text{CaCN}$ —Colorl. cryst.—*Sol.* W.
- Caesium Dichromate Merck** (240)  
 $(\text{Caesium Bichromate})$ — $\text{C}_2\text{Cr}_2\text{O}_7$ .—Reddish-yellow cryst.—*Sol.* W.
- Caesium Disulphate*.—see **Caesium Bisulphate**
- Caesium Hydroxide Merck** (250)  
 $(\text{Caesium Hydrate})$ .— $\text{CaOH}$ —Colorl. or yellowish, very deliq. cryst. mass; strongly alkaline react.—*Sol.*, in W. prod. much heat.—*Caut.* Keep well stoppered.
- Caesium Iodide Merck** (200)  
 $\text{CsI}$ —Colorl., cryst. powd.—*Sol.* W., A.—Succedaneum for potass. iodide, without injurious action on heart.—*Uses*: As of potass. iodide.
- Caesium Nitrate Merck** (240)  
 $\text{CsNO}_3$ .—Gitter, colorl. prisms; saltpeter taste.—*Sol.* W., sl. in A.
- Caesium Sulphate Merck** (200)  
 $(\text{Normal Caesium Sulphate})$ .— $\text{Cs}_2\text{SO}_4$ .—Colorl. prism. cryst.—*Sol.* W.; insol. A.—*Uses*: Brewing, & in manuf. of mineral waters.
- Caesium & Ammonium Bromide Merck** (75)  
 $\text{CsBr} \cdot 3\text{NH}_4\text{Br}$ —Wh., cryst. powd.—*Sol.* W.—Nerve Sed.—*Uses*: Epilepsy, &c.—*Dose* 15–45 grains (1–3 Gm.) 1 or 2 t. p. d.—*Max. D.* 90 grains (6 Gm.) (Laufauer).
- Caesium & Ammonium Chloride Merck** (130)  
 $\text{CsCl} \cdot 3\text{NH}_4\text{Cl}$ —Wh., cryst. powd.—*Sol.* W.—*Uses*: Epilepsy.—*Dose*: As of preceding.
- Caesium & Antimony Chloride Merck.**—Cryst. (225)  
 $6\text{CsCl} \cdot \text{SbCl}_3$ —Yellowish, cryst. powd.—*Sol.*, sl. W.
- Caesium & Manganese Chloride Merck** (140)  
 $2\text{CsCl} \cdot \text{MnCl}_2 + 3\text{H}_2\text{O}$ .—Rose-red cryst.—*Sol.* W.
- Caesium & Rubidium Alum.*—see **Aluminum & Caesium & Rubidium Sulphate**
- Caesium & Rubidium Bromide Merck** (100)  
 $\text{CsBr} \cdot \text{RbBr}$ .—Wh., cryst. powd.—*Sol.* W.; insol. A.—*Uses*: Succedaneum for potass. bromide.
- Caesium & Rubidium Chloride Merck** (150)  
 $\text{CsCl} \cdot \text{RbCl}$ .—Colorl., cryst. powd.—*Sol.* W.
- Caesium & Rubidium & Ammonium Bromide Merck** (35)  
 $\text{CsBr} \cdot \text{RbBr} \cdot 6(\text{NH}_4\text{Br})$ .—Wh., cryst. powd.—*Sol.* W.—*Uses*: Nerv. affect. & epilepsy.—*Dose* 15–45 grains (1–3 Gm.) 1–2 t. p. d.—*Max. D.* 90 grains (6 Gm.) (Laufauer).
- Caferana*.—see **Tachia**
- Caffea (Usta)**  
 (Coffee).—Roasted seeds of *Coffea arabica*, L., & *C. liberica*, Hiern. Rubiaceae.—*Habit.*: Tropical

Africa, especially Abyssinia; cultivated in all tropical countries (Java, West Indies, Brazil, South America, &c.—*Etymol.*: Fr. "Coffee," a province in Narea, Africa, where it grows wild. Or fr. the Arabic name for the decoction, "chambé," "cavé," "cahuá," "caova." "Arabica" refers to its chief habitat.—*Constit.*: Caffeine (theine),  $\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2 + \text{H}_2\text{O}$ ; caffetannic acid,  $\text{C}_{16}\text{H}_{18}\text{O}_8$ ; bitter principle, caffcol,  $\text{C}_8\text{H}_{10}\text{O}_2$ .—*Stim.*—*Uses*: As antid. to opium; also to cover taste of bitter remedies, & as flavor for soda-water, &c.—*Dose*: fld. extr., 20–60 ml (1.3–2 Cc.).

## Caffea (Viridis)

(Coffee).—Dry unroasted seeds of *Coffea arabica*, L. Rubiaceae.—*Constit.*: Caffeine; caffetannic Acid; caffierine; chinaic acid; arom. oil.—Nerve stim.; Antineuralg.—*Uses*: Migraine, & as antid. to opium.—*Doses*: Alcohol. extr., 3–10 grains (0.2–0.6 Gm.).—fld. extr., 20–60 ml (1.3–4 Cc.).

## Caffeine Merck.—Pure

(5

(Theine; Guaranine; Methyltheobromine; Trimethylxanthine).—Diuretic fr. coffee, tea, guarana, Paraguay tea, or kola nuts. Us'y fr. lvs. *Thea sinensis*, L. (Tea) or dried seeds of *Coffea arabica* (Coffee).— $\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2 + \text{H}_2\text{O}$ , or,  $\text{N}(\text{CH}_3) \cdot \text{CH} \cdot \text{N} \cdot \text{C} \cdot \text{C} \cdot \text{CO} \cdot \text{N}(\text{CH}_3) \cdot \text{CO} \cdot \text{N}(\text{CH}_3) + \text{H}_2\text{O}$ .—Wh., fleecy masses, long, flex., silky cryst.; bitter taste.—*Sol.* 7 C., 55 A., 80 W., & 555 E. at 15° C.; (45.6 W., 53.2 A., 375 E., & 8 C., at 25° C., & in 17.1 A. at 60° C.—U. S. P.); solubil. increased by antipyrine, potass. bromide, sod. benz., or sod. salicyl.—*Melt.* 236.8° C.—*Subl.* 178° C.—Diur.; Cereb. Stim.; Card. Stim.; Muscle Invigor.—*Uses*: Nerv. headache, neural. heart fail., card. dropsy, chr. nephr., collapse, senile pneum., &c.—*Dose* 1–5 grains (0.06–0.3 Gm.) several t. p. d.—*Max. D.* 10 grains (0.6 Gm.), single; 30 grains (2 Gm.) p. day.

## do. Merck.—True.—Fr. Coffee

(300

Fr. seeds *Coffea arabica*, L. (Coffee.) Ident., chem., w. "theine," fr. tea.— $\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2 + \text{H}_2\text{O}$ .—*Uses*: Claimed, differs physiol. fr. theine; said to act princip. on motor nerves, theine on sensory.

## Caffeine Arsenate Merck

(10

Wh. powd.—*Sol.*, hot W.—*Uses*: Neuralg., & as cholag. in certain forms of jaundice.—*Dose* 2 granules (each  $\frac{1}{60}$  grain [0.001 Gm.]) ev. 15 min. until 16 are taken per day.—*Caut.* Poison!

## Caffeine Benzoate Merck

(7

Wh. cryst.—*Sol.* W., A.—*Uses & Doses*: As of caffeine.

## Caffeine Borate

Wh. cryst. or powd.—*Sol.* W.

*Caffeine Bromide*.—see **Caffeine Hydrobromide**

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Caffeine Citrate.—True salt**

$C_8H_{10}N_4O_2 \cdot C_6H_8O_7$ .—Wh., cryst. powd.—*Sol.* W., A., w. decomp.—*Uses & Doses*: As of caffeine.—*Caut.* This salt is not the one intended when simply "Caffeine Citrate" is prescribed. When "Caffeine Citrate" is ordered without express specification of "true," the "Citrate Caffeine" of the U. S. P. is always intended.

**Caffeine Citrate, Ammoniated.—see Caffeine & Ammonium Citrate****Caffeine Citrated Merck.—U. S. P. (3)**

(Improperly called "Caffeine Citrate").—Abt. 50% caffeine.—Wh. powd.; acid taste.—*Sol.* W., A., mixt. C. & A.—*Uses*: As of caffeine.—*Dose* 3–8 grains (0.2–0.5 Gm.).—*Max. D.* 10 grains (0.6 Gm.) single; & 30 grains (2 Gm.) p. d.

*Note.*—This is prepared especially to meet the requirements of the U. S. P., & is always to be preferred when a preparation of high quality is to be dispensed.

**do.—Effervescent.—U. S. P.**

(Effervescent "Citrate" of Caffeine).—Abt. 1% caffeine.—Coarse, wh. granul. powd.; efferv. on add. W.—*Sol.* W.—*Uses*: As of caffeine.—*Dose* 60 grains (4 Gm.).—*Caut.* Keep dry.

**Caffeine Diiodohydriodide.—see Caffeine Triiodide****Caffeine Hydrobromide Merck.—True salt (5)**

(So-called "Caffeine Bromide").—Colorl. cryst.—*Sol.* W., with decomp.—*Uses*: Chiefly as diuret.—*Dose*  $\frac{1}{2}$ –5 grains (0.03–0.3 Gm.).—*Inj.* 4–10  $\text{m}$  (0.25–0.6 Cc.) solut. caffeine hydrobr. 10, hydrobromic acid 1, distil. W. 3.—*Caut.* Keep well stoppered, in amber bottles, fr. air & light.

**Caffeine Hydrochloride Merck.—True salt (7)**

(Caffeine Muriate).— $C_8H_{10}N_4O_2 \cdot HCl + 2H_2O$ .—True salt.—Colorl. cryst.—*Sol.* W., with decomp.—*Uses & Doses*: As of caffeine.

**Caffeine Salicylate Merck.—True salt (7)**

$C_8H_{10}N_4O_2 \cdot C_7H_6O_3$ .—Wh., cryst. masses.—*Sol.* W., A., with decomp.—*Uses*: Comb. act. of caffeine w. salicylic acid.—*Doses*: As of caffeine.

**Caffeine-Sodium Cinnamate.—see Hetol-Caffeine****Caffeine-Sodium Iodide.—see Iodocaffeine****Caffeine Sulphate Merck.—True salt (7)**

$C_8H_{10}N_4O_2 \cdot H_2SO_4$ .—Wh. cryst.—*Sol.* W., w. decomp.—*Uses & Dose*: As of caffeine.

**Caffeine Triiodide Merck.—Cryst. (30)**

(Caffeine Diiodohydriodide; Diiodocaffeine).— $(C_8H_{10}N_4O_2 \cdot I_2 \cdot H_2O)_2 + 3H_2O$ .—Dark green prisms.—*Sol.* A., w. decomp.; lecomp. by W.—*Alter.*: Diuret.—*Uses*: Inst. of potass. iodide, said to be non-depressing. Readily liberates iodine in system.—*Dose* 2–4 grains (0.12–0.25 Gm.) several t. p. d.—*Incomp.*, acids.

**Caffeine Valerate Merck.—True salt (8)**

$C_8H_{10}N_4O_2 \cdot C_6H_{10}O_2$ .—Small cryst.—*Sol.* A., w. decomp.—*Uses*: Nerv. headache, nerv. vomit., whoop-cough, & hyst. condit. w. pain.—*Doses*: As of caffeine.

**Caffeine & Sodium Benzoate Merck (7)**

47.9% caffeine.—Wh. powd.—*Sol.* 2 W.—*Uses*: Inst. of caffeine, by inj.—*Dose*, abt. double that of caffeine.

**do.—N. F.**

Mixt. eq. parts caffeine & sod. benzoate.

**Caffeine & Sodium Citrate Merck (10)**

47.5% caffeine, w. 52.5% sod. citrate.—Wh. powd.—*Sol.* 2 W.—*Uses*: Inst. of caffeine for subcut. inj.—*Dose*, abt. double that of caffeine.

**Caffeine & Sodium Hydrobromide Merck (10)**

Abt. 60% caffeine hydrobromide, w. 40% sod. bromide.—Wh. powd.—*Sol.* W.—*Uses*: Inst. of caffeine for subcut. inj.—*Dose*, abt. double that of caffeine.

**Caffeine & Sodium Salicylate Merck (7)**

45.45% caffeine.—Wh. powd.—*Sol.* 2 W.; diffie. in A.—*Uses*: Inst. of caffeine, by inj. Valuable in rheum. w. heart disease, & in threatened collapse of pneumonia.—*Dose*, abt. double that of caffeine.

**do.—N. F.**

Mixt. eq. parts caffeine & sod. salicylate.

**Cahinca**

(Cahinca; Snowberry; David's Root).—Bark of root of *Chiococca racemosa*, Jacquin. Rubiaceæ.—*Habit.*: West Indies; Mexico; Argentine; Brazil to New Granada.—*Etymol.*: "Cahinca," or "cahinca," is the native name of the plant.—*Constit.*: Cahnineic acid (or cahincin, a glucoside),  $C_{40}H_{64}O_{18}$ ; caffetannic acid; resin.—*Uses*: Diuret. in dropsy; in Brazil as antid. to snake bites; large doses are violently emetic & drastic.—*Doses*: Bark of root, 20–60 grains (1.3–4 Gm.) as purgat. & diuret.—*Alcoh. extr.*, 15–30 grains (1–2 Gm.) daily, as an addition to diuret. pills.—*Fld. extr.*, 20–40  $\text{m}$  (1.3–2.6 Cc.).

**Cahincin.—see Acid Cahnine****Cahnine.—see Cahinca****Cahnine.—see Acid Cahnine****Cajeputene.—see Dipentene****Cajeputol.—see Eucalyptol****Calabar Bean.—see Physostigma****Calaguala**

Rhizome of *Polypodium Calaguala*, Ruiz. Polypodiaceæ; also *Polypodium crassifolium*, L., *Aerostichum Huasero*, Ruiz, & *Aspidium coriaceum*, Sw.—*Habit.*: Peru.—*Etymol.*: "Calaguala" is the South American name of the plant.—*Resolvent*; *Diaphor.* *Uses*: Chronic affect.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

of the respiratory organs, & in whoop-cough.—*Extern.*, as vulnerary.—*Dose* 30–60 grains (2–4 Gm.) per day, in powd.; or in infus., 2–4, 100. The decoct. is used externally like arnica.

**Calamine** (1)  
(Lapis Calaminaris).—Mixture of native carbonate & silicate of zinc.—*Habit.*: Europe; U. S.—Prepared calamine, the preparation chiefly used, is a pinkish or flesh-colored powd. of earthy appearance.—*Uses*: *Medic.*, as a zinc preparation chiefly for *extern. use*.—*Techn.*, chiefly as a source for manuf. of zinc salts.

**Calamus**.—U. S. P.  
(Sweet Flag; Calmus; Sweet Cane; Sweet Grass).—Unpeeled, dried rhizome of *Acorus Calamus*, L. Araceae.—*Habit.*: Europe; North America; Western Asia; cult. in Burmah & Ceylon.—*Etymol.*: Grk. "kalamos," fr. the Arabic "kalem," a reed or tube, i.e., the lvs. or scapes are cane- or reed-like. "Acorus," fr. Grk. "a," not, & "kore," pupil of the eye, i.e., the plant was originally thought to cure eye troubles.—*Constit.*: Acorin,  $C_{15}H_{16}O_6$ ; acoretin (choline); calamine; volat. oil; resin; tannin; mucilage.—*Tonic*; Stomachic; Bitter; Carmin.; Stim.—*Uses*: Dyspep., flatulence, &c.—*Doses*: 15–60 grains (1–4 Gm.).—Alcoh. extr., 2–6 grains (0.12–0.36 Gm.) several t. p. d.—Fld. extr., 10–30 ℥ (0.6–2 Cc.).—Tinct. 15–60 ℥ (1–4 Cc.).

**Calaya**.—see **Pambotano**

**Calcatrippa**.—see **Delphinium Consolida**

**Calcic Liver of Sulphur**.—see **Lime Sulphurated**

**Calcinol**=**Calcium Iodate**.—see **Calcium Iodate**

**Calcium Merck** (8)  
Metal.—Ca.—*Etymol.*: Lat. "calx," stone, but more particularly limestone; the metal was first obtained by Davy in 1808 fr. calcium chloride.—Wh. metal; brilliant surface when freshly cut.—*Caut.* Keep dry, in well-stop. bots.

**Calcium Acetate Merck**.—Pure, dried (1)  
 $Ca(C_2H_3O_2)_2$ .—Wh., amorph. powd.—*Sol.* W., A.—*Uses*: Chem. & techn.

**do.**—Crude (1)  
Fr. crude acetic, or pyroligneous, acid.—*Sol.* W.—*Uses*: *Techn.*, chiefly in manuf. of acetic acid & acetone; also in dyeing.

**Calcium Arsenate Merck** (4)  
(Tricalcium Orthoarsenate).— $Ca_3(AsO_4)_2 + aq.$ —Wh. powd., or cryst.—*Sol.*, v. sl. W.; easily in dil. acids.

**Calcium Arsenite Merck** (3)  
 $Ca_3(AsO_3)_2$ .—Wh., gran. powd.—*Sol.*, v. sl. W.

**Calcium Benzoate Merck**.—Pure (3)  
 $Ca(C_6H_5O_2)_2 + 3H_2O$ .—Wh. powd., or cryst.—*Sol.* W.—Alter.; Antisep.—*Uses*: Scrof. affect. & rachitis.—*Dose* 10–30 grains (0.6–2 Gm.).—*Caut.* Keep well stoppered.

**Calcium Botanaphtholalphamonosulphonate**.—see **Abrotol**; **Asaprol**

**Calcium Bichromate**.—see **Calcium Dichromate**

**Calcium Bimalate Merck**.—Cryst. (20)

(Calcium Bimalate; Acid Calcium Malate).— $Ca(HC_4H_4O_5)_2 + 6H_2O$ .—Wh. powd.—*Sol.*, sl. W.

**Calcium Biphosphate**.—see **Calcium Phosphate, Monobasic**

**Calcium Bisaccharate**.—see **Calcium Saccharate**

**Calcium Bisulphate**

(Acid Calcium Sulphate; Calcium Disulphate).— $Ca(HSO_4)_2$ .—Gray paste; decomp. to gypsum by moist air.—*Incomp.*, water.—*Caut.* Keep well stoppered.

**Calcium Bisulphite Merck**.—Solution; 8° Bé. (1)  
Solut. of calc. sulphite ( $CaSO_3$ ) in aq. solut. sulphurous acid.—Liq. w. strong sulphur dioxide odor.—Disinf.; Antisep.—*Uses*: *Extern.*, dil. w. 4–8 volumes of W.; gargle or spray in catarrh of throat or diphth.; inj. in vaginitis & endometr.; antisep. wash f. wounds, burns, or ulcers.—*Techn.*, microbicide & preservative, particularly in brewing to prevent souring & cloudiness of beer (1:10,000), to prevent secondary fermentation, washing casks; bleaching sponges; also largely in manuf. sulphite cellulose fr. wood, & in paper-making.

**Calcium Bitartrate Merck**.—Pure (5)  
(Acid Calcium Tartrate).— $Ca(HC_4H_4O_6)_2$ .—Colorl. cryst.—*Sol.* W.

**Calcium Borate Merck** (2)  
Wh. powd.—*Sol.*, hot W.—Antisep.; Astring.—*Uses*: *Intern.*, infant diarrhea.—*Extern.*, weeping eczema, fetid perspir., chafing, &c.—*Dose* (children) 1–5 grains (0.06–0.3 Gm.) 3 t. p. d., in powd.—*Appl.* 10–20% oint. or dust. powd. in moist eczema & in bromidrosis.

**Calcium Borocitrate Merck** (4)  
Fine, wh. powd.—*Sol.*, dil. acids; sl. W.

**Calcium Bromide Merck**. (1)  
 $CaBr_2$ .—Wh. gran.; v. deliq.; sharp, saline taste.—*Sol.* very easily in W. & A. (U. S. P.).—Nerve Sed., like potas. brom.—*Uses*: Epilepsy, hyst., &c.—*Dose* 10–30 grains (0.6–2 Gm.) 2 t. p. d.—*Techn.*, in manuf. of mineral waters, & in photogr.—*Caut.* Keep well stoppered.

**Calcium Bromiodide Merck** (20)  
Mixture of calcium iodide & bromide in molec. prop.— $CaI_2 + CaBr_2$ .—Yellow powd.—*Sol.* W.—Alter.; Sed.—*Uses*: Epilepsy & rachitis.—*Dose* 5–10 grains (0.3–0.6 Gm.) 3 t. p. d.

**Calcium Butyrate Merck**.—Pure (3)  
 $Ca(C_4H_7O_2)_2 + H_2O$ .—Colorl. cryst.—*Sol.* W.; v. sol. hot W.

**Calcium Cacodylate Merck** (20)  
 $Ca[(CH_3)_2AsO_2]_2 + aq.$ —Wh. powd.—*Sol.* W.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Calcium Carbide**

Fr. lime w. carbon by the electric furnace.— $\text{CaC}_2$ .—Grayish-black, irregular lumps. Decomp. with  $\text{W.}$ , evolving acetylene ( $\text{C}_2\text{H}_2$ ) & leaving residue of slaked lime. The acetylene evolved may be taken up by acetone, which will hold 60% of its weight of the gas in solution.—Sp. Gr. 2.22.—*Uses: Medic.*, Gynecol., in treatment of uterine & vaginal epithelioma, the calcium carbide, in pieces the size of a small nut, being introduced into the vagina, & the vagina then tamponed with iodoform gauze.—*Techn.*, for the generation of acetylene gas for lighting purposes (1 kilo of carbide yields 280–300 liters acetylene); as reducing agent, e.g., for direct reduction of copper sulphide to metallic copper; signal fires for marine service.

**Calcium Carbolate.**—see **Calcium Phenate**

**Calcium Carbonate Merck.—Precipitated** (1)

(Precipitated Calcium Carbonate; Precipitated Chalk).— $\text{CaCO}_3$ .—Fine, wh., amorph. powd.—*Sol.*, acids, w. effervesc. — *Antacid.* — *Uses: Intern.*, diar., acid condit. of intest.—*Extern.*, tooth powd., & in pyrosis.—*Dose* 10–40 grains (0.6–2.6 Gm.).

do. Merck.—Pure, precip. (1)

do. Merck.—Highest Purity, precip. (1)

do.—Prepared (1)

(Prepared Chalk; Drop Chalk).—Calc. carb. (chalk) purif. by mech. means.— $\text{CaCO}_3$ .—Perf. wh., amorph. powd., or sm. conical drops.—*Sol.*, acids w. effervesc. — *Antacid; Intern.* Antisep.—*Uses: Intern.*, diar., acid dyspep.—*Extern.*, burns & ulcers.—*Techn.*, for preparing carbon dioxide, manuf. of calcimine, polishing powders, in metallurgical processes, building, &c.—*Dose* 10–40 grains (0.6–2.6 Gm.).

**Calcium Carbonate Merck.—Reagent.—Precipitated** (2)

$\text{CaCO}_3$ .—Wh., cryst. powd.—*Sol.*, somewh. in aqu. solut.  $\text{CO}_2$ ; alm. insol. pure  $\text{W.}$  (1:27,000).—*Tests: (Solubility in HCl, HNO<sub>3</sub>, & C<sub>2</sub>H<sub>4</sub>O<sub>2</sub>)* 5 Gm. compl. solub. in 25 Ce.  $\text{HCl}$  (sp. gr. 1.124), or 25 Ce.  $\text{HNO}_3$  (sp. gr. 1.153), or 60 Ce. dil.  $\text{C}_2\text{H}_4\text{O}_2$ ; soluts. must be clear & colorl.—(*Heavy Met.*) 1 Gm.+5 Ce.  $\text{HCl}$  (sp. gr. 1.124)+25 Ce.  $\text{H}_2\text{O}$ +aqu.  $\text{H}_2\text{S}$  (& even w.  $\text{NH}_4\text{OH}$  in excess+2–3 drops  $[\text{NH}_4]\text{HS}$ )—no ppt. or green color in either case.—(*Mg*) 1 Gm.+5 Ce.  $\text{HCl}$  (sp. gr. 1.124)+5 Ce.  $\text{H}_2\text{O}$ +10 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96)+excess solut.  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ ; let stand 5 hrs.; filter; add to filtrate  $\text{Na}_2\text{HPO}_4$ —no ppt. within 12 hrs.—(*H<sub>2</sub>SO<sub>4</sub>*) 1 Gm.+5 Ce.  $\text{HCl}$  (sp. gr. 1.124)+25 Ce.  $\text{H}_2\text{O}$ ; boil 5 min.; add solut.  $\text{BaCl}_2$ —no ppt. ( $\text{BaSO}_4$ ) within 12 hrs.—(*Cl*) 1 Gm.+5 Ce.  $\text{HNO}_3$  (sp. gr. 1.153)+25 Ce.  $\text{H}_2\text{O}$ +solut.  $\text{AgNO}_3$ —no turb.—( $\text{H}_3\text{PO}_4$ ) 10 Gm.+50 Ce.  $\text{HNO}_3$  (sp. gr. 1.153)+25 Ce. solut. ammon. molybd.; let stand at 30–40° C.—no ppt. within 12 hrs.—(*Alkalies; CaO*) 1 Gm.+50 Ce.

boiled & cooled  $\text{H}_2\text{O}$ ; shake; filter—filtrate free fr. alkalinity, & when evap. & ignited, leaves not more than 0.001 Gm. res.—*Uses: Detect.*  $\text{Cl}$ ,  $\text{Br}$ , &  $\text{I}$  in organic substances; assistant w.  $\text{NH}_4\text{Cl}$  in decomposing silicates.

*Note.*—For complete tests see “Chemical Reagents: Their Purity & Tests,” published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Calcium Chinato.**—see **Calcium Quinate**

**Calcium Chinovate.**—see **Calcium Quinovate**

**Calcium Chlorate Merck** (7)

$\text{Ca}(\text{ClO}_3)_2 + 2\text{H}_2\text{O}$ .—Wh. to yellowish cryst.—*Sol.* 0.6  $\text{W.}$ ,  $\text{A.}$ —*Uses: Photography*, pyrotechnics, & in manuf. of mineral waters.—*Caut.* Keep well stoppered.

**Calcium Chloraurate.**—see **Gold and Calcium Chloride**

**Calcium Chlorhydrophosphate.**—see **Calcium Hydrochlorophosphate**

**Calcium Chlorhydrosulphate.**—see **Calcium Hydrochlorosulphate**

**Calcium Chloride Merck.—Pure, fused, white; granular, sticks, or lumps** (1)

$\text{CaCl}_2$ .—Pure wh., v. deliq. gran. powd., or wh. light, easily broken sticks, or wh., lustrous lumps.—*Sol.* 1.5  $\text{W.}$ , 8  $\text{A.}$ —*Uses: Rachitis* & arthritis, & as hemostat., intern. & extern.—*Chem.*, drying agent.—*Dose* 5–20 grains (0.3–1.3 Gm.), in solut.—In chron. irrit. (pruritus, urticaria, prurigo) large doses are given, e.g., 20–40 grains (1.3–2.6 Gm.).—*Techn.*, in brewing & in manuf. of mineral waters.—*Caut.* Keep well stoppered.

do. Merck.—Pure, cryst. (1)

$\text{CaCl}_2 + 6\text{H}_2\text{O}$ .—Colorl., very deliq. cryst.—*Sol.*  $\text{W.}$ ,  $\text{A.}$ —*Uses: As of preceding.*—*Caut.* Keep well stoppered.

do. Merck.—Pure, dry (1)

$\text{CaCl}_2$ .—Sm., wh. lumps.—*Sol.*  $\text{W.}$ ,  $\text{A.}$

do. Merck.—Crude, fused, or gran. (1)

$\text{CaCl}_2$ .—Grayish-wh., deliq. lumps or gran. powd.—*Sol.*  $\text{W.}$ ,  $\text{A.}$ —*Uses: Drying agent*; obtaining & maintaining baths of high & constant temperatures; preserving meat in boxes; refig. mixt.; fire extinguishers; fire-proofing paints; impregnating fabrics; sprinkling on railway rails in snowfalls; in building; as size in admixture w. starch paste; manuf. artif. gypsum; manuf. of hydrochloric acid, alizarin, & sugar; preserving stone, &c.—*Caut.* Keep well stoppered.

**Calcium Chloride Merck.—Reagent** (1)

$\text{CaCl}_2 + 6\text{H}_2\text{O}$ .—Colorl., deliq. cryst.—*Sol.*  $\text{W.}$ ,  $\text{A.}$ —Aqu. solut. neutral.—*Tests: (Impur. Insol. in Absol. A.)* 2 Gm. compl. solub. in 20 Ce. absol.  $\text{A.}$ —(*Heavy Met.*) 20 Ce. aqu. 1:20 solut.+1 Ce.  $\text{HCl}$  (sp. gr. 1.124)+aqu.  $\text{H}_2\text{S}$ —no reaction; add further 5 Ce.  $\text{NH}_4\text{OH}$ +2–3 drops  $(\text{NH}_4)\text{HS}$ —

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

no ppt. or green color.—( $H_2SO_4$  2 Gm. + 20 Cc.  $H_2O$  + 1 Cc.  $HCl$  (sp. gr. 1.124) + solut.  $BaCl_2$ —no ppt. ( $BaSO_4$ ) within 12 hrs.— $NH_4$  Salts boil 2 Gm. + 10 Cc. solut.  $NaOH$ —no  $NH_3$  evolved (test w. moist litmus paper).—( $Ba$ ) 2 Gm. + 20 Cc.  $H_2O$  + 20 Cc. solut.  $CaSO_4$ —no ppt. ( $BaSO_4$ ) within 3 hrs.—( $As$ ) 5 Gm. + 20 Cc.  $H_2O$ ; introduce solut. in sm. quant. into Marsh appar. started w. 10 Gm.  $As$ -free  $Zn$  & dil. 1.5  $H_2SO_4$ —no deposit in reduct. tube within 1 hr.—*Uses*: Detect. & separ. organic acids.

*Note*.—For complete tests see "Chemical Reagents, Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Calcium Chloride Merck.**—Reagent.—Dry, granulated (1)

$CaCl_2 + 2H_2O$ —Wh., gran. porous masses or pieces size of pea.—*Uses*: Chiefly drying gases.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.**—Reagent.—Fused (1)

$CaCl_2$ —Wh., cryst. masses.—*Uses*: Flux for silicates; dehydrating agent.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Calcium Chlorosulphate.**—see **Calcium Hydrochlorosulphate**

**Calcium Chromate Merck.**—Pure (3)

$CaCrO_4 + 2H_2O$ —Yellow powd.—*Sol.*, dil. acids; sl. W.

**Calcium Cinnamate Merck.**—Pure (30)

(Calcium Cinnamylate).— $Ca(C_9H_7O_2)_2 + 3H_2O$ .—Colorl. cryst.—*Sol.*, hot W.

**Calcium Cinnamylate.**—see **Calcium Cinnamate**

**Calcium Citrate Merck** (4)

$Ca_3(C_6H_5O_7)_2 + 4H_2O$ —Wh. cryst.—*Sol.* 1730 W. at 90° C.; more readily cold W.

**Calcium Dichromate Merck.**—Highest Purity (8)

(Calcium Bichromate).— $CaCr_2O_7$ .—Brownish-red, deliq. cryst.—*Sol.* W.

**Calcium Dimalate.**—see **Calcium Bimalate**

**Calcium Disulphate.**—see **Calcium Bisulphate**

**Calcium Eosolate**

Calcium salt of trisulphoacetylguaiacol.— $Ca_3(C_6H_4O_2CH_2OC_2H_4[SO_3]_3)_2$ .—Gray powd.; pung., ether. odor & sl. sharp taste.—*Sol.* 8–10 cold, 7 hot, W., & in  $HCl$  & solut. citric acid; sl. A.; insol. C., oil turpent.—*Antisep.*—*Uses*: Diabet., phthis., & nephritis.—*Dose* 5–12 grains (0.3–0.75 Gm.) sev. t. p. d.

**Calcium Ethylsulphate Merck** (8)

(Calcium Sulphovinate).— $Ca(C_2H_5SO_4)_2 + H_2O$ .—Transp., colorl. cryst.—*Sol.* W.; sl. in A.

**Calcium Ferri cyanide Merck.**—Pure (40)

$Ca_3Fe(CN)_6$ —aq.—Reddish, very deliq. need.—*Sol.* W.

**Calcium Ferrocyanide**

$Ca_2FeCy_6 + aq.$

**Calcium Fluoride Merck.**—Pure (3)

$CaF_2$ —Wh. powd.; bec. luminous w. heat.—*Sol.*, aqu. solut. amm. salts; insol. W.—*Uses*: Etching glass, manuf. of enamels & HF, &c.

**Calcium Formate Merck** (4)

$Ca(CHO_2)_2$ —Wh., cryst. powd., or colorl. cryst.—*Sol.* W.

**Calcium Glycerate Merck** (30)

(Calcium Glycerolate or Glycerinate).— $Ca(C_3H_5O_4)_2 + 2H_2O$ .—Wh. powd.—*Sol.* W.

**Calcium Glycerinoarsenate.**—see **Arsitriol**

**Calcium Glycerinoborate Merck** (7)

Colorl., cryst. crusts.—*Sol.* W.—*Antisep.*—*Uses*: Extern., & as preservative.

**Calcium Glycerinolactophosphate Merck** (8)

Mixt. of calc. glycerinophos. & calc. lactophos.—Wh. powd.—*Sol.* W.

**Calcium Glycerinophosphate Merck** (3)

(Calcium Glycerophosphate).—From calcium carbonate by glycerinphosphoric acid.—Wh., cryst. powd.—*Sol.* 30 cold W.; alm. insol. in boil. W.—*Nerve Tonic.*—*Uses*: Where lime & phosph. are required. In rach., neurasthenia, scrofula, diffie. dentition, incontinence of urine, wasting dis. & convalesc. The phosphorus of lecithin of food is converted into glycerinophos. acid before assimil.; hence most nat. form for adm. phosphorus.—*Dose* 2–5 grains (0.12–0.3 Gm.).

**do. Merck.**—Granulated (3)

95% calc. glycerinophosphate.

**Calcium Glycerophosphate.**—see **Calcium Glycerinophosphate**

**Calcium Glycolate Merck** (40)

$Ca(C_2H_3O_3)_2 + aq.$ —Wh. cryst.—*Sol.*, sl. W.

**Calcium Guaiacolmonosulphonate.**—see **Guaiacyl**

**Calcium Hippurate Merck** (25)

$Ca(C_9H_8NO_3)_2$ —Wh., cryst. powd.—*Sol.*, sl. in hot W.—*Alter.*; *Antiarthrit.* & *Antilith.*—*Uses*: Cystitis, lithiasis, scrof., phth., diffie. dentit., uric-acid diathesis, &c.—*Dose* 5–20 grains (0.3–1.3 Gm.).

**Calcium Hydrate.**—see **Calcium Hydroxide**

**Calcium Hydrochlorophosphate Merck** (4)

(Calcium Chlorhydrophosphate).—Y. llowish powd.—*Sol.* W.

**do. Merck.**—25% Solution (2)

Colorl. to yellowish liq.—*Misc.*, w. W. in all proport.—*Sp. Gr.* 1.225 at 15° C.—*Tonic*;

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



Alter.—*Uses*: Tubercul., scrofula, rachitis, & inflamm. phth.—*Dose* 5–10 drops in W. several t. p. d.

### Calcium Hydrochlorosulphate Merck (4)

(Calcium Chlorhydrosulphate; Calcium Chlorosulphate).—Wh. to yellowish cryst. pwd.—Alm. insol. W.—*Uses*: As of calcium sulphate.

### Calcium Hydrosulphide Merck (1)

(Calcium Sulphydrate).—Fr. monosulphide by boil. with W., or fr. hydroxide, by sulph. hydrogen.— $\text{Ca}(\text{HS})_2$ .—Colorl., transp. cryst.; decomp. in air.—*Sol.* W.—*Uses*: Depilatory.—*Caut.* Keep well closed.

### Calcium Hydroxide

(Calcium Hydrate; Slaked Lime).— $\text{Ca}(\text{OH})_2$ .—*Uses*: *Extern.*, depil. Also pharm. & techn.

do.—*Solution*.—U. S. P.

(Lime Water; Solution of Lime or Calcium Hydroxide).— $\text{Ca}(\text{OH})_2 + \text{aq.}$ —Colorl., clear liq.; flb., alkal., saline taste.—*Misc.* W.—Antacid; Astring.; Tonic.—*Uses*: *Intern.*, sour stomach, diar., dysent., gravel, diab., vomiting, dyspep., &c.—*Extern.*, linim. on burns, &c.—*Dose*  $\frac{1}{2}$ –4 oz. (15–120 Cc.).

### Calcium Hydroxide Merck.—Reagent (1)

(Slaked Lime).— $\text{Ca}(\text{OH})_2$ .—Wh., dry pwd.—*Uses*: Detect. alkalics in Mg salts.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

do. Merck.—Reagent.—*Solution* (1)

(Lime-Water).—Clear, colorl. liq.; strong alkal. react.—*Uses*: Identif. citric & tartaric acids, &c.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### Calcium "Hypochlorite."—see Lime, Chlorinated

### Calcium Hypochlorite

$\text{Ca}(\text{ClO})_2 + \text{aq.}$ —Wh. cubes; decomp. readily.—Antisept.—*Uses*: Str. bleach. agent, disinfect.—*Antid.*, ammonia vapor, steam, ether vapor, v. dil. hydrogen sulphide gas.—*Caut.* Poison!

### Calcium Hypophosphite Merck (1)

(Lime Hypophosphite).— $\text{Ca}(\text{PH}_2\text{O}_2)_2$ .—Wh. to whitish-gray cryst.—*Sol.* W.—Decomp. & gives out inflamm. gas above  $300^\circ \text{C.}$ —*Uses*: Phth., rach., chlorosis, defect. nutrit. of nerv. & bony tiss.; contraindic. in fever.—*Dose* 10–30 grains (0.6–2 Gm.).

do. Merck.—Purified (2)

### Calcium Hyposulphite.—see Calcium Thiosulphate

### Calcium Iodate Merck (11)

$\text{Ca}(\text{IO}_3)_2 + 6\text{H}_2\text{O.}$ —Wh. prisms.—*Sol.* 400 W.; insol. A.—Antiseptic.—*Uses*: *Intern.*, cystitis, and abnorm. gastric processes.—*Extern.*, wounds, as excellent succedaneum for iodoform, & in mouth washes, gargles (1–3:100), fetid breath, angina, & diphth.—*Appl.* 1:10 oint. in ulcus cruris; as insufflat. in torrhea (1:9 with bismuth subcarbonate).—*Dose* 3–5 grains (0.2–0.3 Gm.) several t. p. d.

### Calcium Iodide Merck (5)

$\text{CaI}_2$ .—Yellowish-white powd.; decomp. by absorp. of carbon dioxide fr. air.—*Sol.* W., A.—Alter.—*Uses*: Syph., hepat., asthma, struma & o. affect., inst. of potass. iodide; said to act better than the potass. salt.—*Dose* 2–5 grains (0.12–0.3 Gm.) 3 t. p. d., in syrup.—*Max. D.*, daily 15 grains (1 Gm.).—*Techn.*, in photog.

### Calcium Iodobichenate.—see Sajodin

### Calcium Isobutyrate Merck (4)

$\text{Ca}(\text{C}_4\text{H}_7\text{O}_2)_2 + 5\text{H}_2\text{O.}$ —Colorl., monoc. need.—*Sol.* W.

### Calcium Kinate.—see Calcium Quinate

### Calcium Lactate Merck.—Pure, soluble (3)

$\text{Ca}(\text{C}_3\text{H}_5\text{O}_2)_2 + 5\text{H}_2\text{O.}$ —Wh., cryst. masses.—*Sol.* W., hot A.—*Uses*: Rach. & scrof. of children as syrup of calcium lactophosphate.—*Dose* 3–10 grains (0.2–0.6 Gm.), in syrup.

### Calcium Lactophosphate Merck.—Soluble.—Cryst. or powd. (2)

Comb. of calcium lactate & phosphate.—Wh. cryst. or powd.—Abt. 3%  $\text{Ca}_3(\text{PO}_4)_2$ .—*Sol.* W.—Stim. & Nutrient.—*Uses*: Rach. & cond. of malnutrit. in children.—*Dose* 3–10 grains (0.2–0.6 Gm.) 3 t. p. d.

do. Merck.—Insoluble powd. (1)

do. Merck.—Paste (2)

Wh., pasty mass.—*Uses*: Well adapted for manuf. of syrup calcium lactophosphate.

### Calcium Malate, Acid.—see Calcium Bimalate

### Calcium Meconate Merck

Fr. extr. opium, by a solub. calc. salt.— $\text{CaC}_2\text{H}_3\text{O}_2 + \text{H}_2\text{O.}$ —Yellowish-wh. powd.—*Sol.*, v. sl. W.

### Calcium Methylsulphate Merck (15)

(Calcium Sulphomethylate).— $\text{Ca}(\text{CH}_3\text{SO}_4)_2$ .—Wh. cryst.—*Sol.* W.

### Calcium Nitrate Merck.—Pure, dry (2)

$\text{Ca}(\text{NO}_3)_2 + \text{aq.}$  in variable proport.—Wh., deliq. mass.—*Sol.* 0.9 W., A.—*Melt.*  $44^\circ \text{C.}$ —*Caut.* Keep well stoppered.

### Calcium Nitrite Merck 20

$\text{Ca}(\text{NO}_2)_2 + \text{H}_2\text{O.}$ —Prisms, or yellowish, brittle masses.—*Sol.* W.—*Caut.* Keep well stoppered.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Calcium Oleate Merck** (7)

$\text{Ca(C}_{18}\text{H}_{35}\text{O}_2)_2$ .—Whitish-yellow, gran. powd.—*Sol.* A, E, oil turpentine.

**Calcium Orthotungstate.**—see **Calcium Tungstate**

**Calcium Oxalate Merck** (2)

$\text{CaC}_2\text{O}_4$ .—Wh. mass.—*Sol.*, nitric or hydrochl. acid; insol. W.

**Calcium Oxide Merck** (1)

(Lime; Burnt Lime).—By burning marble or limestone.— $\text{CaO}$ .—Hard, wh. lumps; gradually crumble on expos. to air; when wet evolve heat & bec. "slaked."—*Sol.*, dil. acids; 65 G.; abt. 800 W.—*Escar.*; Antacid.—*Uses:* Intern., in solut. (as lime-water or syrup lime) to check nausea, acid stom., & rachitis.—*Extern.*, in cancr. growths & ulcers, &c.—*Uses:* For making lime water.—*Caut.* Keep fr. air.

**Calcium Oxide Merck.—Reagent.—From Iceland Spar** (100)

$\text{CaO}$ .—Wh. pieces in the form of Iceland-spar cryst.—*Tests:* (*Solub.*;  $\text{H}_2\text{SO}_4$ ) 3 Gm.+10 Ce.  $\text{H}_2\text{O}$ +15 Ce.  $\text{HCl}$  (sp. gr. 1.121)—compl. solub. without effervesc.; dil. solut. w. 50 Ce.  $\text{H}_2\text{O}$ , heat to boil., & add solut.  $\text{BaCl}_2$ —not more than sl. percept. but non-weighable traces ppt. ( $\text{BaSO}_4$ ) visible.—( $\text{H}_3\text{PO}_4$ ) 3 Gm.+10 Ce.  $\text{H}_2\text{O}$ +25 Ce.  $\text{HNO}_3$  (sp. gr. 1.153)+25 Ce. solut. ammon. molybd., & let stand at 30–40° C.—no yellow ppt. within 12 hrs.—(*Cl*) 3 Gm.+10 Ce.  $\text{H}_2\text{O}$ +20 Ce.  $\text{HNO}_3$  (sp. gr. 1.153)+10 Ce.  $\text{H}_2\text{O}$ +solut.  $\text{AgNO}_3$ —no turb.—(*Fe*) 1 Gm.+5 Ce.  $\text{H}_2\text{O}$ +10 Ce.  $\text{HCl}$  (sp. gr. 1.124)+0.5 Ce. solut. potass. ferrocyan.—no immed. blue color.—*Uses:* Decomp. silicates, &c.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.—Reagent.—From Marble** (1)

$\text{CaO}$ .—Wh. pieces; gran. structure; develop great heat when sprinkled w. W., & bec. converted into fine, dust-like powd. or pasty mass accord. to quant. of W.—*Sol.*, abt. 800 cold, & 1300 boil., W.—*Tests:* ( $\text{H}_2\text{CO}_3$ ; *Si*; *Al*;  $\text{H}_2\text{SO}_4$ ) 5 Gm.+10 Ce.  $\text{H}_2\text{O}$ +30 Ce.  $\text{HCl}$  (sp. gr. 1.124)—alm. compl. solub. without strong efferv. Dil. solut. w. 20 Ce.  $\text{H}_2\text{O}$ , & filter (insol. res. after ignition should weigh at most 0.005 Gm.); *a*: add to 25 Ce. filtrate solut.  $\text{BaCl}_2$ —no turb. within 10 min.; *b*: add to 25 Ce. filtrate excess  $\text{NH}_4\text{OH}$ —only sl. opalesc.—(*Cl*) 1 Gm.+3 Ce.  $\text{H}_2\text{O}$ +10 Ce.  $\text{HNO}_3$  (sp. gr. 1.153)+10 Ce.  $\text{H}_2\text{O}$ ; filter; add solut.  $\text{AgNO}_3$ —at most sl. opalesc.—*Uses:* Decomp. silicates; detect. S, P, & Cl, in organic substances.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Calcium Oxysulphide Merck** (2)

Yellowish-wh. powd.—*Uses:* Wash for scrof. ulc. & scabies, in aq. 1:4 solut. (Vlemingks's Solution).

**Calcium Palmitate Merck** (12)

$\text{Ca(C}_{16}\text{H}_{31}\text{O}_2)_2$ .—Yellowish-wh., cryst. powd.—*Sol.* A.

**Calcium Permanganate Merck.—Highest Purity, Medicinal, cryst.** (20)

$\text{Ca(MnO}_4)_2 \cdot 5\text{H}_2\text{O}$ .—Violet cryst.—*Sol.* W.—*Uses:* Intern., gastro-enter. & diar. of children.—*Extern.*, as other permanganates for mouth lotions; taste less objectionable; exceedingly powerful disinf., being 100 times more powerful than potass. permang., & exceed. even corros. subl. as antisept. Chiefly used for sterilizing water for drinking purposes; also in dentistry.—*Dose* 1–2 grains (0.06–0.12 Gm.).—*Caut.* Keep well stoppered.

**Calcium Peroxide Merck** (20)

(Calcium Superoxide).— $\text{CaO}_2 + 4\text{H}_2\text{O}$ .—Yellow, cryst. powd.—*Sol.*, sl. W. with evolution of oxygen.—*Uses:* Recom. as excellent succed. for milk-of-lime in acid dyspep. & in the summer diar. of infants.—*Dose:* For children, 3–10 grains (0.2–0.6 Gm.) according to age.

**Calcium Phenate Merck.—Pure** (3)

(Calcium Carbolate).— $\text{Ca(OC}_6\text{H}_5)_2$ .—Reddish powd.—Antisept.—*Sol.*, sl. in W. & A.—*Uses:* Disinf.; extern. & intern. antisept.—*Dose* 2–5 grains (0.12–0.3 Gm.).

**do. Merck.—Crude, abt. 40%** (1)

*Uses:* Disinf., sick-room utensils, privies, &c.

**Calcium Phenolsulphonate Merck** (1)

(Calcium Sulphocarbolate, or Sulphophenate, or Sulphophenylic).— $\text{Ca(C}_6\text{H}_4\text{SO}_3)_2 + \text{H}_2\text{O}$ .—Wh. cryst. or powd.—*Sol.* W.—Intest. Antisept. & Astring.—*Uses:* Cholera morbus, infect. diar., intest. ulc., &c.—*Dose* 5–15 grains (0.3–1 Gm.) in 1% aq. solut.

*Note.*—This article is specially prepared to be free from the undesirable phenol & other compounds apt to be found in the ordinary preparation; its purity hence makes the use of this salt desirable to the exclusion of all others.

**Calcium Phosphate Merck.—Dibasic** (1)

(Dicalcium Orthophosphate; Bicalcic Phosphate; Secondary Calcium Phosphate; Bibasic Calcium Phosphate).—Fr. solub. calc. salt & disod. phosph.— $\text{Ca}_2\text{H}_2(\text{PO}_4)_2 + 4\text{H}_2\text{O}$ , or,  $\text{CaH}_2\text{PO}_4 + 2\text{H}_2\text{O}$ .—Wh., cryst. powd.—*Sol.*, acids; insol. W.—*Uses:* Source of phosphorus or phosphates for syst., in bone dis. (rach., osteomal., card., diffic. dentition, &c.), chlorosis, fungous inflam. of joints, &c.; also in dentistry.—*Dose* 8–30 grains (0.5–2 Gm.) several t.p.d. in powd., pills, or dissolved w. aid of acid.

**do. Merck.—Pure, dry** (1)

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Calcium Phosphate Merck.—Dibasic.—Highest Purity** (1)

do.—Crude (1)

Abt. 36%  $\text{H}_3\text{PO}_4$ .—*Uses*: As addition to food of domestic animals.**Calcium Phosphate Merck.—Dibasic.—Reagent (7**

(Secondary Calcium Phosphate; Dicalcium Phosphate).— $\text{CaHPO}_4 + 2\text{H}_2\text{O}$ .—Wh., cryst. powd.—*Sol.*, eas. in  $\text{HCl}$ ,  $\text{HNO}_3$ , or  $\text{H}_3\text{PO}_4$ , without effervesce.; diffie. in W. & in cold  $\text{C}_2\text{H}_4\text{O}_2$ .—*Tests*: (As) as detailed under calc. phosph., monobasic, using a solut. 2 Gm.  $\text{CaHPO}_4$  in 5 Ce.  $\text{HCl}$  (sp. gr. 1.124) & 15 Ce.  $\text{H}_2\text{O}$ .—(Cl) 1 Gm. + 5 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + 15 Ce.  $\text{H}_2\text{O}$  + solut.  $\text{AgNO}_3$ —at most sl. opalesc.—(*Heavy Met.*) 1 Gm. + 5 Ce.  $\text{HCl}$  (sp. gr. 1.124) + 15 Ce. + aqu.  $\text{H}_2\text{S}$  +  $\text{NH}_4\text{OH}$  (sp. gr. 0.96)—pure white ppt.—( $\text{H}_2\text{SO}_4$ ) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$ ; shake; filter; add 1 Ce.  $\text{HCl}$  + solut.  $\text{BaCl}_2$ —no ppt. ( $\text{BaSO}_4$ ) within 12 hrs.—(*Res.*) 100 parts ignited yield 74–75 parts res.—*Uses*: In agricultural chemistry, & as a chemical fertilizer.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Calcium Phosphate Merck.—Monobasic.—Pure, cryst.** (2)

(Calcium Biphosphate; Acid Calcium Phosphate; Monocalcium Orthophosphate; Monocalcic Phosphate; Primary Calcium Phosphate).—Chief constit. of so-called "Superphosphate of Lime," prod. by decomp. tricalcic (or dicalcic) phosphate w. sulphuric acid.— $\text{Ca}(\text{H}_2\text{PO}_4)_2 + \text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W.—*Caut.* Keep well stoppered.—*Uses*: In baking powd.

**Calcium Phosphate Merck.—Monobasic.—Reagent** (3)

(Calcium Biphosphate; Acid Calcium Phosphate; Primary Calcium Phosphate; Monocalcium Phosphate).— $\text{Ca}(\text{H}_2\text{PO}_4)_2 + \text{H}_2\text{O}$ .—Colorl., pearly scales; deliq. in air.—*Sol.*, in much W.—*Tests*: (As) 2 Gm. + 5 Ce.  $\text{HCl}$  + 15 Ce.  $\text{H}_2\text{O}$ ; introduce solut. into Marsh appar. started w. 10 Gm. As-free gran. Zn & dil. 1:5  $\text{H}_2\text{SO}_4$ —no deposit in reduct. tube within 1 hr.—(Cl) 1 Gm. + 5 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + 15 Ce.  $\text{H}_2\text{O}$  + solut.  $\text{AgNO}_3$ —at most sl. opalesc.—(*Heavy Met.*) 1 Gm. + 5 Ce.  $\text{HCl}$  + 15 Ce.  $\text{H}_2\text{O}$  + 10 Ce.  $\text{NH}_4\text{OH}$  + aqu.  $\text{H}_2\text{S}$ —ppt. should be pure white.—*Uses*: In agricultural chemistry.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Calcium Phosphate Merck.—Tribasic** (2)

(Precipitated Calcium Phosphate; Tricalcium Orthophosphate; Tricalcic Phosphate; Tertiary Calcium Phosphate).—Fr. bone-ash direct.— $\text{Ca}_3(\text{PO}_4)_2$ .—Light, wh., amorph. powd.; odorl.; tastel.—*Sol.*, acids; insol. W.—*Uses*: In bone

dis., and disturbances of nutrition; source of phosphorus; manuf. milk-glass, polishing powd.; enameling.—*Dose* 8–20 grains (0.5–1.3 Gm.), usually w. acids.

**Calcium Phosphate.—Tribasic.—Crude** (1)  
(Bone Ash).**Calcium Phosphate Merck.—Tribasic.—Reagent** (8)

(Tertiary Calcium Phosphate; Tricalcium Phosphate).— $\text{Ca}_3(\text{PO}_4)_2$ .—Wh., amorph. powd.—*Sol.*, eas.  $\text{HCl}$  or  $\text{HNO}_3$  without efferves.; insol. cold W.; decomp. by boil. W.—*Tests*: (As) As detailed under calc. phosph., monobasic, & using solut. 2 Gm.  $\text{Ca}_3(\text{PO}_4)_2$  in 5 Ce.  $\text{HCl}$  (sp. gr. 1.124) & 15 Ce.  $\text{H}_2\text{O}$ .—( $\text{H}_2\text{SO}_4$ ) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$ ; shake; filter; filtrate + 1 Ce.  $\text{HCl}$  + solut.  $\text{BaCl}_2$ —no ppt. ( $\text{BaSO}_4$ ) within 12 hrs.—(Cl) 1 Gm. + 5 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + 15 Ce.  $\text{H}_2\text{O}$  + solut.  $\text{AgNO}_3$ —at most sl. opalesc.—(*Heavy Met.*) 1 Gm. + 5 Ce.  $\text{HCl}$  (sp. gr. 1.124) + 15 Ce.  $\text{H}_2\text{O}$  + aqu.  $\text{H}_2\text{S}$  + 10 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96)—pure wh. ppt.—*Uses*: Agricultural chemistry.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Calcium Phosphate, Acid.**—see **Calcium Phosphate, Monobasic****Calcium Phosphate Antimoniated Merck** (3)

(James's Febrile Powder).—Antimony oxide (33) & precip. calc. phosphate (67).—Dull white, gritty powd.; odorl.; tastel.—*Sol.*, boil. W.—*Diaphor.*; *Alter.*; *Purg.*; & *Emetic.*—*Uses*: Acute rheum., febr. dis., &c.—*Dose* 3–8 grains (0.2–0.5 Gm.) 4 to 6 t. p. d., in pills as w. opium; larger doses purg.

**Calcium Phosphate, Precipitated.**—see **Calcium Phosphate****Calcium Phosphate, Primary.**—see **Calcium Phosphate, Monobasic****Calcium Phosphate, Secondary.**—see **Calcium Phosphate, Dibasic****Calcium Phosphate, Tertiary.**—see **Calcium Phosphate, Tribasic****Calcium Phosphide Merck** (8)

(Photophor).— $\text{Ca}_3\text{P}_2$ .—Gray masses; decomp. on contact with W. generat. hydrogen phosphide which takes fire in air.—*Uses*: Signal fires.

**Calcium Phosphite Merck** (6)

$\text{CaHPO}_3 + \text{H}_2\text{O}$ .—Sm., wh. cryst.; evolves hydrogen phosphite w. heat.—*Sol.*, sl. W.

**Calcium Phthalate Merck** (20)

$\text{CaC}_8\text{H}_4\text{O}_4 + \text{H}_2\text{O}$ .—Wh. prisms.—*Sol.* W.

**Calcium Picrate**

(Calcium Piconitrate).— $\text{Ca}(\text{C}_6\text{H}_3(\text{NO}_2)_3\text{O}_2)_2$ .—Reddish-brown to yellow powd.—*Sol.* W.—*Caut.* Explosivel

**Comparative Values** (see *Preface*, page v): 1= Cheap Articles; 2= Salol; 3= Guaiacol; 4= Potassium Iodide; 5= Iodoform; 11= Silver Nitrate; 25= Strychnine; 44= Veratrine; 55= Morphine Sulphate; 225= Aconitine; 570= Gold Tribromide; 1111= Eserine Sulphate; 1710= Hyoscyamine; 2565= Homatropine Hydrobromide; 3000 & over= Very Expensive Articles.



# MERCK'S 1907 INDEX

- Calcium Picronitrate**—see **Calcium Picrate**
- Calcium Platinochloride**.—see **Platinum & Calcium Chloride**
- Calcium Platinocyanide**.—see **Platinum & Calcium Cyanide**
- Calcium Plumbate Merck** (10)  
 $\text{Ca PbO}_3$ .—Flesh-colored powd.—*Sol.*, acids.  
*Uses*: Oxidizer, in pyrotechn. instead of chlorates, in matches, in manuf. of lead-calcium glass, in bleaching, & in manuf. of accumulator batteries.
- Calcium Propionate Merck** (40)  
 $\text{Ca C}_2\text{H}_3\text{O}_2$ .—Wh. powd.—*Sol.* W.
- Calcium Pyrophosphate Merck** (3)  
 $\text{Ca}_2\text{P}_2\text{O}_7$ .—Wh. powd.—*Sol.*, acids; insol. W.
- Calcium Quinate Merck**.—Cryst. (25)  
 (Calcium Chinate, or Kinate).— $\text{Ca}(\text{C}_2\text{H}_3\text{O}_2)_2 + 10\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W.
- Calcium Quinovate Merck** (25)  
 (Calcium Chinovate).—Wh. to yellowish powd.—*Sol.* A.—*Uses*: Tonic in dysent. & malar. fever.—*Dose*  $\frac{1}{6}$ – $\frac{1}{2}$  grain (0.01–0.03 Gm.).
- Calcium Rhodanide**.—see **Calcium Sulphocyanate**
- Calcium Saccharate Merck** (3)  
 (Saccharated Lime; Calcium Bisaccharate; Antacidin).—True calc. saccharate w. sugar.—Wh., glossy scales.—*Sol.* W.; cas. in sweet. water.—*Antacid*; Teniaf.—*Uses*: Intern., dyspep., flatulence, tape-worm, &c., partic. in children; antid. to carbolic acid.—*Extern.*, burns.—*Dose* 10–30 grains (0.6–2 Gm.), children abt. half as much. In carbolic-acid poisoning doses up to 10 times as much must be given.
- Calcium Salicylate Merck** (4)  
 $\text{Ca}(\text{C}_6\text{H}_4(\text{OH})\text{COO})_2 + 2\text{H}_2\text{O}$ .—Wh. cryst.; alkal. react.—*Sol.*, cas. in carbonated W.; v. sl. W.—*Uses*: Gastroenteritis, summer diar. of childr.—*Dose* 8–20 grains (0.5–1.3 Gm.).
- Calcium Santoninate Merck** (70)  
 $\text{Ca}(\text{C}_{15}\text{H}_{19}\text{O}_4)_2$ .—Wh., cryst. powd.—Insol. in W. or C.—Anthelmintic.—*Uses*: Inst. of santonin; less dangerous, being less solub.—*Dose*  $\frac{1}{2}$ – $\frac{1}{2}$  grains (0.03–0.1 Gm.), in confec. or sugar.
- Calcium Selenite Merck**.—Pure (120)  
 $\text{CaSeO}_3 + 2\text{H}_2\text{O}$ .—Wh. powd.—*Sol.* W.
- Calcium Silicate Merck**.—Pure (3)  
 Fr. a calcium-salt solut., w. sod. or potass. silicate.—Wh., amorph. mass.—Insol. W. & acids.
- Calcium Silicofluoride Merck**.—Pure (7)  
 $\text{CaSiF}_6 + 2\text{H}_2\text{O}$ .—Wh. powd.—*Sol.*, v. sl. W.
- Calcium Stearate Merck** (6)  
 (Calcium Stearinate).— $\text{Ca}(\text{C}_{17}\text{H}_{35}\text{O}_2)_2$ .—Wh., pulv. mass.—*Sol.*, hot A.; insol. W.
- Calcium Succinate Merck** (50)  
 $\text{CaC}_4\text{H}_4\text{O}_4 + \text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W.
- Calcium Sulphate Merck**.—Pure, precip. (1)  
 (Artificial Gypsum, Hydrated Calcium Sulphate).— $\text{CaSO}_4 + 2\text{H}_2\text{O}$ .—Wh. powd.—*Uses*: Techn., as white pigment, as glaze in paper manuf., cements, artif. ivory, polishing powd., plastering wines, &c.
- do. —Dried (1)  
 (Dried Gypsum; Plaster of Paris).— $2\text{CaSO}_4 + \text{H}_2\text{O}$ .—Fine, wh. powd.; 95% of anhyd. calc. sulph. & 5% W.; odorl.; tastel.—*Uses*: Making plaster bandages for fractures, &c.
- Calcium Sulphate Merck**.—Reagent.—Precipitated (3)  
 (Gypsum).— $\text{CaSO}_4 + 2\text{H}_2\text{O}$ .—Fine, wh. powd.—*Sol.*, dillic. W. (abt. 1:500).—*Tests*: (Fe; Mg; Alkalies) warm 2 Gm.+10 Ce. HCl (sp. gr. 1.124)+100 Ce.  $\text{H}_2\text{O}$ —clear solut.; the solut.+15 Ce.  $\text{NH}_4\text{OH}$ +few drops solut. ( $\text{NH}_4$ )HS—no greenish or dark color. To solut. (no matter whether  $\text{CaSO}_4$  pptd. or not) add solut. ( $\text{NH}_4$ ) $\text{C}_2\text{O}_4$  in sl. excess; filter; evap. filtrate & ignite in platin. dish—not more than 0.001 Gm. res.—*Uses*: Detect. Ba, Sr, & oxalic & tartaric acids; standardizing soap solut.
- Note.—For complete tests see “Chemical Reagents: Their Purity & Tests,” published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.
- Calcium Sulphate, Acid**.—see **Calcium Bisulphate**
- Calcium Sulphate, Hydrated**.—see **Calcium Sulphate**
- Calcium Sulphide, Crude**.—see **Lime Sulphurated**
- Calcium Sulphide Merck**.—Reagent (3)  
 Light, gray cubes; evolve  $\text{H}_2\text{S}$  copiously with HCl.—*Tests*: (As) as detailed under barium sulphide.—*Uses*: Prepar. As-free  $\text{H}_2\text{S}$ .
- Note.—For complete tests see “Chemical Reagents: Their Purity & Tests,” published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.
- do. Otto-Merck.—Reagent (3)  
 Grayish-wh. cubes.—*Uses*: Prep. hydrogen sulphide.
- Calcium Sulphide Hydrated Merck** (2)  
 $\text{CaS} + \text{aq}$ .—Greenish-gray, pasty mass.—*Uses*: Depil.
- Calcium Sulphite Merck**.—Pure (1)  
 $\text{CaSO}_3$ .—Wh. powd.—*Sol.*, sulphurous acid, 20 G., 800 W.—Antisp.—*Uses*: Flatul., diar., dyspep., & tonsil.—*Dose* 1–5 grains (0.06–0.3 Gm.).
- do. Merck.—Purified (1)  
 Wh. powd.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Calcium Sulphite Merck.**—Crude (1)  
Wh. powd.—*Uses*: Gives off sulphur diox. w. acids. Disinf. in brewing as addition to beer, as coating to insides of brewing vats, antichlor in bleaching instead of sod. sulphite in sugar manuf., as a preservative, in manuf. cellulose fr. wood fiber by Mitscherlich's process, & rendering stable solut. sulphurous acid.

**Calcium Sulphocarbolate.**—see **Calcium Phenol-sulphonate**

**Calcium Sulphocyanate Merck.**—Pure (3)  
(Calcium Sulphocyanide, or Rhodanide).—Ca(SCN)<sub>2</sub>.—Wh., cryst. powd.—*Sol.* W.

**Calcium Sulphomethylate.**—see **Calcium Methyl-sulphate**

**Calcium Sulphophenate.** } —see **Calcium**  
**Calcium Sulphophenylate.** } **Phenolsulphonate**

**Calcium Sulphovinate.**—see **Calcium Ethylsulphate**

**Calcium Sulphydrate.**—see **Calcium Hydrosulphide**

**Calcium Superoxide.**—see **Calcium Peroxide**

**Calcium Tannate Merck** (4)  
Yellowish-gray powd.—*Sol.*, dil. acids; v. sl. W.

**Calcium Tartrate Merck** (4)  
CaC<sub>4</sub>H<sub>4</sub>O<sub>6</sub> + 4H<sub>2</sub>O.—Wh. powd.—*Sol.*, v. sl. W.

**Calcium Tartrate, Acid.**—see **Calcium Bitartrate**

**Calcium Thiosulphate Merck.**—Cryst. (2)  
(Calcium Hyposulphite).—CaS<sub>2</sub>O<sub>3</sub>.—Wh. cryst.—*Sol.* W.—*Antisep.*—*Uses*: Internal antiseptic in fermentative affections of stomach & bowels.—*Dose* 3–10 grains (0.2–0.6 Gm.).

**Calcium Trichlorocarbolate.**—see **Calcium Trichlorophenate**

**Calcium Trichlorophenate Merck** (12)  
(Calcium Trichlorocarbolate).—Ca(C<sub>6</sub>H<sub>2</sub>Cl<sub>3</sub>O)<sub>2</sub> + 4H<sub>2</sub>O.—Wh., cryst. powd.—*Sol.*, sl. W. & A.

**Calcium Tungstate Merck.**—Cryst. (15)  
(Calcium Orthotungstate; Calcium Wolframate).—CaWO<sub>4</sub>.—*Artif.* Scheelit.—Shining, tetragonal, cryst. scales.—*Insol.* W.—*Uses*: In varying degrees of fineness for preparing screens for taking photographs by the Röntgen rays.

**do. Merck.**—*Precip.* (7)  
Wh. powd.—*Insol.* W.—Luminous in the dark.—*Uses*: Luminous paints.

**Calcium Urate Merck** (30)  
Ca(C<sub>6</sub>H<sub>3</sub>N<sub>3</sub>O<sub>3</sub>)<sub>2</sub>.—Wh. powd.—*Sol.*, v. sl. W.

**Calcium Valerate Merck** (15)  
(Calcium Valerianate).—Ca(C<sub>6</sub>H<sub>9</sub>O<sub>2</sub>)<sub>2</sub> + 3H<sub>2</sub>O.—Wh. to yellowish, cryst. powd.; sl. valerian odor.—*Sol.* W.

**Calcium Wolframate.**—see **Calcium Tungstate**

**Calcium & Antimony Sulphide Merck** (2)  
Grayish-wh. powd.—*Sol.*, partially W.—*Uses*: *Intern.*, in chronic metallic poisoning.—*Extern.*, in mouthwashes & washes in 1% solut.; & mixed w. W. to paste as depilatory.—*Dose* 1½–5 grains (0.1–0.3 Gm.).

**Calcium & Copper Acetate.**—see **Copper & Calcium Acetate**

**Calcium & Iron Lactophosphate Merck.**—Soluble (8)

Wh. powd.—*Sol.* 5 boil. W.—*Uses*: Rachitis & scrof.; also in prepar. syrup calc. & iron lactophos. (calc. & iron lactophos., 6 Gm., dissolve in 30 Gm. warm W., & add syrup 70 Gm.).—*Dose* 3–8 grains (0.2–0.5 Gm.), sev. t. p. d. in syrup.

**Calcium & Magnesium Phosphate Merck** (4)  
Mixture of calcium & magnesium phosphates.—Wh. powd.—*Insol.* W.

**Calcium & Sodium Hypophosphite Merck** (2)  
Mixture of hypophosphites of calcium & sodium.

**Calendula.**—*U. S. P.*

(Marigold; Mary-bud; Gold-bloom).—Dried, ligulate florets of *Calendula officinalis*, L. Composite.—*Habit.*: Southern Europe & Levant; cultivated everywhere in gardens.—*Etymol.*: Fr. Lat. "calendæ," the first of the month, i.e., flowers bloom almost every month.—*Constit.*: Volat. oil; bitter principle; coloring matter; calendulin.—*Stim.*; Diaphor.; Resolv.; Vulner.; Alter.—*Uses*: Typhoid fever & carcinoma.—*Extern.* for wounds & sores.—*Techn.*, for coloring butter, & as adulterant of saffron.—*Doses*: 15–60 grains (1–4 Gm.).—*Alcoh. extr.*, 2–6 grains (0.12–0.36 Gm.).—*Fld. extr.*, 15–60 m (1–4 Ce.); *extern.*, pure or diluted, as appl. to sores, bruises, &c.—*Tinct.*, 20–90 m (1.3–6 Ce.).

**Cali**

(Pseudo-calabar Bean; Horse-eye Beans; Bread-nut Berry).—Nut fr. *Mucuna urens*, D. C. Papilionaceæ.—*Habit.*: Western Africa; tropical America.—*Etymol.*: "Cali" is the West African commercial name of the nut.—*Constit.*: Pseudo-physostigmine.—*Uses*: Sialag.; Myotic; Purgat.

**Calliandra.**—see **Pambotano**

**Calliandrein**

Glucoside (probably a saponin), fr. *Calliandra grandiflora*, a Mexican shrub.—Wh., odorl. powd.—*Sol.* W.; the solut. foams on being shaken.—*Antipyretic.*—*Uses*: Intermit. fever.—*Dose* 1 grain (0.06 Gm.).

**Calluna**

(Heather; Dog-heather; Scotch Heather; Herba Erica).—Whole plant *Calluna vulgaris*, Salisb. (*Erica vulgaris* L.). Ericaceæ.—*Habit.*: Europe; natur. in New England.—*Etymol.*: Fr. Grk. "kallos," beautiful, "kallyno," to adorn oneself. "Erica," fr. Grk. "ereikein," to break, as the

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Acouitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



plant is very fragile.—*Constit.*—Iricin(?); ericolin,  $C_{34}H_{56}O_{21}$ (?); callumatannic acid, arbutin, quercetin.—*Uses*: Nephrolithiasis.

**Calomel.**—see **Mercury Chloride, Mild**

**Calomelol**

(15

(Colloidal, or Soluble, Calomel).—Whitish-gray, odorl., tastel. powd.—*Sol.* A., E., B., W., affording milky solutions.—80%  $HgCl$  & 20% albuminoids.—*Antisyphil.*—*Uses*: In syphilis, ulcers as dusting powd.; 2% dressing; & as 45% oint. by injection in syphil. in quant. of 60–90 grains (4–6 Gm.).

**Calumba.**—*U. S. P.*

(Colombo).—Root of *Jateorhiza palmata* (Lamarek) Miers. Menispermaceae.—*Habit.*: Eastern Africa.—*Etymol.*: “Kalmub” is the native African name, “colombo,” the Ceylonese name; the habitat of the plant was supposed to be originally Ceylon. “*Jateorhiza*” fr. Grk. “*iater*,” healing, & “*rhiza*,” root, referring to its medicinal virtues. “*Palmata*” fr. Lat. “*palmatus*,” palm of the hand, i.e., the lvs. are palmately-lobed.—*Constit.*: Columbin,  $C_{21}H_{22}O_7$ ; berberin,  $C_{20}H_{17}NO_4 + 4H_2O$ ; columbic acid,  $C_{21}H_{22}O_6 + H_2O$ ; columbine(?); cholesterol; mucilage.—*Tonic*; *Astring.* in diar.; *Stomach.*; *Stim.*; *Antisep.*; *Disinf.*; *Anthelm.*—*Uses*: Dyspep., debil., flatulence, &c.—*Doses*: 5–60 grains (0.3–4 Gm.).—*Alcoh. extr.*, (dry) 2–10 grains (0.12–0.6 Gm.); (soft) 4–20 grains (0.25–1.3 Gm.).—*Fld. extr.*, 15–60  $\mathfrak{m}$  (1–4 Ce.).—*Tinct.*, 1–4 fl. dr. (4–15 Ce.).

**Calycanthus**

(Florida Allspice).—Bark of *Calycanthus floridus*, L. Calycanthaceae.—*Habit.*: N. & S. Carolina.—*Constit.*: Volat. oil; resin; tannin.—*Antiper.*; *Tonic*.—*Uses*: Malar. affect. & to increase appetite.—*Dose*: *Fld. extr.*, 30–60  $\mathfrak{m}$  (2–4 Ce.).

**Camara**

(Bahama Tea; Wild Sage [Jamaica], Camabará).—Dried plant of *Lantana spinosa*, L. Verbenaceae.—*Habit.*: Brazil; West Indies.—*Etymol.*: “Camara” is the South American name of the plant.—*Constit.*: Volat. oil.—*Uses*: Expector.; *Diuret.*; also in arom. baths.

**Cambogia.**—see **Gamboge**

**Camellin Merck**

(2500

Glucoside fr. seeds *Camellia japonica*, L.— $C_{63}H_{84}O_{19}$ .—Reddish-wh., bitter powd.—*Sol.* W.—*Cardiac Stim.*—*Uses*: Rec. in endocarditis & pericarditis inst. of digitalin.

**Campani's Reagent.**—For glucose

Mixt. of concent. solut. lead acetate w. a dil. aqu. solut. cupric acetate.—Is reduced by glucose, but not by cane sugar.

**Camphol.**—see **Borneol**

**Campho-Menthol.**—*N. F.*

Mixt. eq. parts camphor & menthol.

**Camphor.**—*U. S. P.*

(2

(*Gum Camphor*; *Formosa Camphor*; *Japan Camphor*; *Laurel Camphor*).—Dextrogyrate modifi. of the saturated ketone,  $C_{15}H_{10}O$ , fr. *Cinnamomum* (*Laurus*, Linné) *Camphora*, Nees & Ebermaier, Lauraceae, & purif. by sublim.—*Habit.* China; Japan; Formosa, & other tropical & subtropical countries.—*Etymol.*: Fr. the Arabic “*kāfur*,” derived fr. the Malay “*kāpūr*,” chalk-like. Under the name “*kāfur*,” or “*kān-fur*,” the substance was first traded in by the Arabs.—Wh., transl. masses w. numerous cracks; easily broken, but diffic. to powd.—*Sol.* A., E., C.,  $CS_2$ , benzoin. & fixed & volat. oils; sl. in W.—*Melt.* 175° C.—*Boil.* 204° C.—*Sp. Gr.* 0.990 at 25° C.—*Stim.*; *Diaph.*; *Sed.*; *Expector.*, & *Carmin.*—*Uses*: *Intern.*, in nerv. diar., flatul., colic, headache, rheum., gout, chordee, spasmi, cough, asthma, &c.—*Extern.*, in neural., toothache, indol. ulc., paras. skin dis., coryza, &c.—*Techn.*, manuf. of celluloid; moth destroyer; tooth powd.; embalming; pyrotechn.; lacquers.—*Doses*: 1–3 grains (0.06–0.2 Gm.) stim.; 8–12 grains (0.5–0.8 Gm.) sedat.—*Max. D.* 20 grains (4.3 Gm.).—*Inj.*, subcut. in 1:10 oily or ether. solut. as analeptic.—*Extern.*, in 1–2% oint. or dust. powd.; f. inhal. in coryza, teaspoonf. to cup of boil. W.—*Incomp.*, butyl-chloral hydrate, carbolic acid, hydrated chloral, euphorin, menthol, naphthol, resorcinol, salol, salicylic acid, thymol, or urethane, in dry trituration; potass. permang. Camphor water is incompatible w. concentrated solutions of salts.—*Antid.*, emetics, followed by castor oil.

**Camphor, Alant.**—see **Helenin**

**Camphor, Artificial.**—see **Terpene Hydrochloride**

**Camphor, Baras.**—see **Borneol**

**Camphor Benzoated Merck**

(10

Mixt. benzoic acid & camphor.—Wh. powd.—*Sol.* A., E., C.—*Antiseptic.*—*Uses*: *Extern.*, inst. of camphor & benzoic acid.

**Camphor, Bitter-almond-oil.**—see **Benzoin**

**Camphor, Borneo.**—see **Borneol**

**Camphor, Bromated or Brominated.**—see **Camphor Monobromated**

**Camphor, Cantharides.**—see **Cantharidin**

**Camphor, Carbolated.**—see **Camphor Phenolated**

**Camphor Chlorated Merck**

(30

(Monochlorated Camphor).— $C_{15}H_{15}ClO$ .—Yellowish-wh., cryst. powd.—*Sol.* A., E.—*Melt.* 106° C.

**Camphor Citrated Merck**

(8

Mixt. of citric acid & camphor.—Wh. powd.—*Antisep.*; *Antispasm.*; *Stim.*—*Uses*: Flatulence, colic, diar., rheum., & spasmodic cough.—*Dose* 3–10 grains (0.2–0.6 Gm.) several t. p. d.

**Camphor Dibromated Merck**

(25

(Betadibromocamphor).—Fr. mono-(or fr. aliphadi-)bromocamphor.— $C_{15}H_{14}Br_2O$ .—Wh.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



to yellowish cryst.—*Sol.* A., E.—*Melt.* 115° C.—Antiseptic.

*Camphor, Elecampane.* } —see **Helenin**  
*Camphor, Inula.* }

*Camphor, Malayan.*—see **Borneol**

**Camphor Monobromated Merck.**—Cryst. or powd. (3

(Bromated, or Brominated, Camphor; Bromcamphor, Bromocamphor).—Fr. bromine & camphor by heat.— $C_{10}H_{15}BrO$ .—Colorl. prismat. cryst.; camphor. odor & taste.—*Sol.* A., E., C., volat. & fixed oils, B.; sl. G.; alm. insol. W.—*Melt.* 76°C.—*Boil.* 274°C.—Sopor.; Antineural.; Antispasm.—*Uses:* Delir. trem., hyst., insom., spermator., convuls. irrit. of dentit., chordee; infant. diar., whoop., cough, epilepsy, neural., &c., with codeine for morphine habit.—*Dose* 2–5 grains (0.12–0.3 Gm.) several t. p. d., in pill or emulsion.—*Inj.* 1½ grains (0.1 Gm.) in oil.

*Camphor Monochlorated.*—see **Camphor Chlorated**

*Camphor, Peppermint.*—see **Menthol**

**Camphor Phenolated Merck** (7

(Carbolated Camphor; Camphorated Phenol).—Mixt. eq. wts. camphor & carbolic acid.—Colorl. to faintly-yellow, oily liq.; arom. odor.—*Sol.* A., E., C., fatty oils; insol. W.—Antisept.; Antiprur.; Local Anesth.; Carmin.—*Uses:* Intern., dyspep., flatul., &c.—*Extern.*, toothache, neural., furunc., &c. Hypoderm., first prod. burn, sensation, then anesthesia.—*Dose* 5–10 m (0.3–0.6 Cc.), in caps.—*Appl.* 50% oily solut.

**Camphor Salicylated Merck** (10

41% salicylic acid & 56% camphor.—Wh. powd.—*Sol.*, oils, A.—Antisept.; Astring.—*Uses:* Intern., diar.—*Extern.*, oint. in lupus & o. skin dis.—*Dose* 1–5 grains (0.06–0.3 Gm.).

*Camphor, Sumatra.*—see **Borneol**

*Camphor, Tonka-bean.*—see **Cumarin**

**Camphor Valerated Merck** (20

Mixt. camphor & valeric acid.—Colorl. to yellowish liq.—*Sol.* A.—Sed.; Antisept.—*Uses:* Hyst. & o. nerv. affect.—*Dose* 1–5 grains (0.06–0.3 Gm.).

*Camphoric Anhydride.*—see **(Acid) Camphoric Anhydride**

*Canada Snake-root.*—see **Asarum Canadense**

*Canadian Hemp.*—see **Apocynum**

*Canadian Moonseed.*—see **Menispermum**

**Canadine**

Fr. rhizome *Hydrastis canadensis*, L.— $C_{21}H_{21}NO_4$ .—Wh., somew. glossy, need.-like cryst.—*Sol.* A.—*Melt.* 132.5° C.

**Canadine Hydrochloride Merck**

$C_{21}H_{21}NO_4 \cdot HCl$ .—Wh. cryst.—*Sol.* A.; v. sl. W.—Without action on the uterus.

**Canadol Merck** (1

(Kandol; Very Light Petroleum Ether; Light Ligroin).—Fr. petroleum, princip. normal hexane.—V. light, colorl. liq.—Sp. Gr. 0.650–0.700.—Local Anesthetic.—*Uses:* Sciatica, rheum., &c., in form of spray; in pharmacy, & techn., as solvent.

*Canarium.*—see **Elemi**

*Canary Seed.*—see **Phalaris**

**Canchalagua**

Dried plant of *Erythraea chilensis*, Pers. Gentianaceae.—*Habit.*: Peru; Chili.—*Etymol.*: “Canchalagua” is the South American name of the plant.—*Constit.*: Bitter principle; fixed oil; erythrocentaurin (?).—*Uses:* Tonic; Febrif.; Emmen.

*Candleberry.*—see **Myrica Cerifera**

**Canella**

(White Cinnamon; False Winter's Bark; Wild Cinnamon; Bahama White Wood; Wild Canilla).—Bark of *Canella alba*, Murray. Magnoliaceae.—*Habit.*: West Indies & Florida.—*Etymol.*: Spanish “canela,” cinnamon, fr. Grk. “kanna,” or Lat. “canina,” a reed, or “canalis,” a channel or tube, i.e., fr. the appearance of the bark.—Bark occurs as quills 6–24 in. long, abt. ¼ in. thick; pale orange-yellow extern., yellowish-white inner surface; acid, peppery taste; arom. clove-like odor.—*Constit.*: Ether. oil (cont. eugenol); resin; canellin.—Aromat.; Stomachic.—*Uses:* Debil. condit. of digest. organs, scurvy, &c. Also as spice, & as an addition to smoking tobacco.—*Doses:* 10–60 grains (0.6–4 Gm.).—Fld. extr., 15–60 m (1–4 Cc.).

**Cangoura**

Seed of *Rourea oblongifolia*, var. *floribunda*, Hooker & Arnott. Connaraceae.—*Habit.*: San Salvador.—*Etymol.*: Fr. “rourele,” which, according to Aublet, is the Guiana name of the plant.—*Constit.*: A toxic substance (alkaloid?) said to develop symptoms like those of rabies.

*Canker Lettuce.*—see **Pyrola**

**Canna**

(Common Canna; Indian Shot; Tous-les-Mois).—Root of *Canna indica*, L. Scitamineae.—*Habit.*: Europe; widely distributed in tropics.—*Etymol.*: Fr. Celtic “can,” Grk. “kanna,” a reed.—*Constit.*: Chiefly starch.—Diuret.—*Uses:* *Extern.*, in cutan. dis.—*Techn.*, source of starch.

**Cannabin (Resinoid) Merck.**—(Not Cannabine) (120

Fr. *Cannabis sativa*, L., var. *indica* (Indian Hemp).—Greenish-black, extr.-like mass.—*Sol.* A., E.—Hypn.; Narcot.; Analg. & Aphrod.—*Uses:* Hyst., delir. trem., neural., insom., gout, rheum., mental depres., insanity, &c.—*Dose* ¼–1 grain (0.015–0.06 Gm.).

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Cannabindon**

Fr. *Cannabis sativa*, L., var. *indica*.— $C_{12}H_{20}O$ .—Dark, cherry-red syrup.—*Sol.* A., E., C., B.—*Nar.*; *Hypn.*; *Aphrod.*—*Uses.* Causes sleep & intoxication w. hallucinations.—*Dose*  $1\frac{1}{2}$ –1  $\Pi$  (0.02–0.06 Gm.).

**Cannabine (Alkaloid) Merck.**—*Not Cannabin*)

Fr. *Cannabis sativa*, L., var. *indica*.—Dark-brown, viscid mass; narcotic odor; alkali react.—*Sol.* A., E., C.—*Hypn.* without dangerous second. effects.—*Dose*  $1\frac{1}{4}$ –1 grains (0.1–0.25 Gm.).

**Cannabine Tannate Merck**

(50)

Fr. aqu. extr. *Cannabis sativa*, L., var. *indica*.—Brownish powd.; sl'y bitter & str. astring. taste.—*Sol.*, alkali. W. or A.; v. sl. W. or A.—*Hypn.*; *Sed.*—*Uses.* Hyst., delir., nerv. insomnia, &c.—*Dose* 8–15 grains (0.5–1 Gm.) at bedtime, in powd. w. sugar.—*Max. D.* 15 grains (1 Gm.) single; 30 grains (2 Gm.) p. day.

**Cannabinine.**—*Liquid.*—*Pure*

Fr. *Cannabis sativa*, L., var. *indica*.—Yellowish to brownish, syrupy liq; odor similar to that of nicotine.—*Sol.* E.—*Hypn.*; *Sed.*—*Uses.* Produces sleep in insom. of hyst. & epilepsy.

**Cannabinon Merck**

(30)

Balsamic resin fr. fl. tops *Cannabis sativa*, L., var. *indica*.—Dark-brown, sticky mass; v. disagree. taste.—*Sol.*, benzoin, A., C., E., oils; insol. W.—*Hypn.*—*Uses.* Hyst. & insanity.—*Dose*  $\frac{1}{2}$ – $1\frac{1}{2}$  grains (0.03–0.1 Gm.), grad. increased, once p. d., in powd. coffee & sugar; women half as much.—*Max. D.* 3 grains (0.2 Gm.) single; 6 grains (0.36 Gm.) daily.

do. Merck.—10% Trituration

(8)

**Cannabis Indica.**—*U. S. P.*

(Indian Hemp; Indian Cannabis).—Dried flowering tops of pistillate plants of *Cannabis sativa*, L. Moraceae, gathered while yet undeveloped, & carrying the whole of their natural resin.—*Habit.*: Persia; East India; cultiv. in Europe, Asia, & Western U. S.—*Etymol.*: Grk. "kannabis," fr. "kanna," cane, derived fr. Celtic "can," reed, & "ab," small; or "ganeh," its Arabic name. Lat. "sativa," fr. "sativus," cultivated.—*Constit.*: Volat. oil; bitter principle; cannabin; cannabinon; oxycannabin(?); tetanoecannabin(?); eholine; trigonelline; muscarine.—*Hypnot.*; *Diuret.*; *Intoxicant*; *Anodyne*; *Nervine*; *Sudorific*; *Aphrodis.*—*Uses.* Headache, summer diarr., anorexia, neural., rheum., gout, chorea, hyster., mental depress., delir. tremens, uterine hemorrhage, &c.—*Doses.* 2–5 grains (0.12–0.3 Gm.).—*Max. D.* 8 grains (0.5 Gm.) single, & 30 grains (2 Gm.) daily.—*Alcohol. extr.*,  $\frac{1}{4}$ –2 grains (0.015–0.12 Gm.); *Max. D.* 2 grains (0.12 Gm.) single, 5 grains (0.3 Gm.) p. d.; *Extern.*, in oint. & linim. (1:100) in local rheum., neuralgie, or inflammatory pains.—*Fld. extr.*, 3–10  $\Pi$  (0.2–0.6 Gm.).—*Fatty extr.* (a solut. of hashishin-Sée in

butter, contain. the active constituents of *Cannabis indica* in finest subdivision, & hence exceedingly active), 1 gram (0.06 Gm.) per day,  $1\frac{1}{2}$  grains (0.1 Gm.) cause cannabis intoxication.—*Tinct.* 5–20  $\Pi$  (0.3–1.3 Gm.); *Max. D.* 30  $\Pi$  (2 Gm.) single, 120  $\Pi$  (8 Gm.) per day.—*Antid.*, emetics, lemon juice, tannin, coffee, ammonia, atropine, strychnine, artificial respiration, spirit nitrous ether, electricity.

**Cannabis Seed**

(Fructus Cannabis).—Fruit of *Cannabis sativa*, L. Moraceae.—*Habit.*: Asia; now widely cultiv. (N. America, Europe, Brazil, &c.).—*Etymol.*: As preceding.—Achenes, abt.  $\frac{1}{4}$  in. (3 Mm.) long, roundish, smooth, & greenish; sweetish, oily taste.—*Constit.*: Fixed oil; resin.—*Uses.* Emuls. of seeds used in gonorr. Chiefly used as bird food.

**Cantharides.**—*U. S. P.*

(Spanish Fly; Blistering Fly; Blistering Beetle).—The beetle, *Cantharis* (*Lytta*) *vesicatoria*, De Geer, Coleoptera, Meloidae.—*Habit.*: Southern & Central Europe, mainly upon Oleaceae & Caprifoliaceae.—*Etymol.*: Lat. "cantharis," fr. Grk. "kantharis," the classic name for the Spanish-fly, and for an insect destructive to corn. "Vesicatoria," fr. Lat. "vesica," a blister.—Abt. 1 in. long &  $\frac{1}{4}$  in. broad, flattish-cylindrical body; obtusely triangular head; membranous, brownish wings covered by shining, copper-green wing-cases; strong, disagree. odor; acrid taste. The powder is grayish-brown, with shining green particles.—*Constit.*: Cantharidin (0.4–0.7%); fat; odorless compound.—*Diuret.*; *Aphrodis.*; *Emmen.*; *Rubefac.*; *Vesic.*; *Stim.*—*Uses.* Chiefly as a blister, & in hair-washes. Also in veter. practice.—*Doses.*  $\frac{1}{2}$ –2 grains (0.03–0.12 Gm.), as diuret., aphrodis., &c.; large doses narcotic & irrit.—*Ethereal & fld. extr.* are used as vesicants.—*Tinct.*, 3–10  $\Pi$  (0.2–0.6 Gm.).—*Extern.*, in oint., plaster, &c.—*In Veter. Med.*: *Dose* for cattle, 30–75 grains (2–5 Gm.); horses, 8–30 grains (0.5–2 Gm.); sheep & pigs, 3–8 grains (0.2–0.5 Gm.); dogs, 1–3 grains (0.06–0.2 Gm.); cats,  $\frac{1}{6}$ –1 grain (0.01–0.06 Gm.).—*Antid.*, stomach pump; emetics; demulcents (*not* oils); morphine; stim.; warm baths; cataplasms to abdomen.

**Cantharidin Merck**

(1026)

(Lactone of Cantharidic Acid; Cantharides Camphor).—Act. prin. fr. *Cantharis vesicatoria*. De Geer.— $C_{10}H_{12}O_4$ , or  $C_{12}H_{14}O_4(CO)_2O$ , or  $CH_2CH_2CH(CO_2CO_2O)CH_2CH_2CH(CO_2CO_2O)$  (?).—Colorl., cryst. scales; blister the skin.—*Sol.* A., B., E., C., carbon disulph.—*Melt.* 218°C.—*Stim.*; *Vesic.*; *Antituberc.*; *Aphrodis.*—*Uses.* In lupus & tuberculosis; also cystitis.—*Dose.*: Teaspoonful of 1:100,000 hydro-alcoholic solut. 3 or 4 t. p. d.—*Inj.*, in form of potass. cantharidinate, 3–6  $\Pi$  (0.2–0.36 Gm.) of solut. 1:5000 several t. p. week.—*Max. D.*  $\frac{1}{100}$  grain

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



(0.0006 Gm.).—*Antid.*, emetics, stomach pump, mucilaginous drinks, ice, camphor, & opium; avoid fats & oils.—*Caut.* Poison!

*Caoutchouc*.—see **Rubber**

*Capparis*.—see **Simulo**

*Capronitrile*.—see **Amyl Cyanide**

**Capronyl Chloride Merck** (350

$C_6H_{11}OCl$ .—Colorl. liq.—*Boil.* 135–140° C.

*Caproyl Hydride*.—see **Hexane**

**Capryl Acetate Normal Merck** (75

$C_{16}H_{32}O_2$ , or  $C_8H_{17}.C_2H_3O_2$ .—Transp., colorl. liq.—*Sol.* A.—*Sp. Gr.* 0.8847 at 0° C.—*Boil.* 210° C.

**Caprylene Merck** (110

(Normal Octylene; Octene).—Secondary octyl alc. by anhyd. zinc chloride w. heat.— $C_8H_{16}$ .—Colorl. liq.; rather str. odor.—*Sp. Gr.* 0.722 at 17° C.—*Boil.* 123° C.

**Capsella**

(Shepherd's Purse; Blind-weed).—Dried plant of *Capsella Bursa pastoris*, Moench. Cruciferae.—*Habit.*: Europe; natur. in U. S.—*Etymol.*: "Capsella," dim. of Lat. "capsa," a box. Lat. "bursa," purse, & "pastor," shepherd, because the lvs. have the form of a shepherd's purse.—*Constit.*: Bursin; saponin(?); bursinic acid; tannin.—*Hemost.*; Febrif.; Diuret.; Antiscorbutic; Stim.; Astring.—*Uses*: Amenor., scurvy, dropsy, hemorrhages.—*Doses*: 15–60 grains (1–4 Gm.) in powd.—*Fld. extr.*, as antiscorbutic, 15–30  $\mathfrak{m}$  (1–2 Cc.); in hemorrhage, 75–150  $\mathfrak{m}$  (5–10 Cc.); *Max. D.* 4 fl. dr. (15 Cc.) single, 1 fld. oz. (30 Cc.) per day.—*Tinct.* 30–60  $\mathfrak{m}$  (2–4 Cc.).

**Capsicin Merck** (20

Oleoresin fr. *Capsicum annuum*.—Soft, reddish-brown masses.—*Sol.* A., E.—*Stim.*; Rubef.; Anod.—*Uses*: *Intern.*, promote digestion.—*Extern.*, revulsive; relieve pain.—*Dose*  $\frac{1}{10}$ – $\frac{1}{4}$  grain (0.006–0.015 Gm.) 3 or more t. p. d. in pills.—*Appl.*, in olive oil, or petrolatum.—Also used to impart a pungent taste to brandy, & vinegar (for mixed pickles).

**Capsicum**.—U. S. P.

(Cayenne Pepper; African Pepper; Chillies; Bird Pepper).—Dried, ripe fruit of *Capsicum fastigiatum*, Blume. Solanaceae.—*Habit.*: Southern India; extensively cultivated in tropical America & Africa.—*Etymol.*: Fr. Lat. "capsa" (Grk. "kapsa"), a box, or capsule, i.e., the seeds are contained in one. Or, fr. Grk. "kapto," to bite, i.e., the fruit has a hot, pungent taste. "Fastigiatum," fr. Lat. "fastigiatus," tapering, referring to the shape of the fruit.—*Constit.*: Fixed oils; capsaicin,  $C_9H_{11}O_2$ ; capsacutin,  $C_{35}H_{57}N_3O_2$ ; capscin; capsiol; capsaicine (volat. alkaloid(?)); fixed oil; oleic, stearic, & palmitic acids; coloring matter.—*Stim.*; Stomach;

Rubef.; Diaphor.; also as Condiment.—*Uses*: *Intern.*, diar., dyspep., palsy, sore throat, gastric inactivity of malaria, atonic gout, colic, alcoholism, &c.—*Extern.*, in rheum., neural., lumbago, &c.—*Doses*: 1–8 grains (0.06–0.5 Gm.).—*Extr.*  $\frac{1}{10}$ – $\frac{1}{2}$  grain (0.006–0.03 Gm.); *Extern.*, in alcohol. solut. in rheum., neural., lumbago, &c.—*Fld. extr.*, 1–3  $\mathfrak{m}$  (0.06–0.2 Cc.).—*Tinct.*, 15–30  $\mathfrak{m}$  (1–2 Cc.).

**Caramel**

(Sugar Coloring; Burnt Sugar).—Brown subste. fr. sugar, by heat.—Dark brown mass, or semi-solid; bitter taste; deliq.—*Sol.* W.—*Uses*: Coloring liquors, confectionery, &c.

*Caraway*.—see **Carum**

*Carbamidated Quinine Dihydrochloride*.—see **Quinine & Urea Hydrochloride**

*Carbamide*.—see **Urea**

*Carbamidine Carbonate*.—see **Guanidine Carbonate**

*Carbanilide*.—see **Diphenylurea**

*Carbanilide Chloride*.—see **Diphenylurea Chloride**

**Carbazole Merck**.—Cryst. (15

(Diphenylimide; Imidodiphenyl).—Fr. aniline by dissociation, or from crude anthracene.— $C_{12}H_9N$ , or  $H_4C_6NH.C_6H_4$ .—Wh. to reddish-wh. cryst.—*Sol.* A., toluene, sulphuric acid.—*Melt.* 238° C.—*Boil.* 338° C.

*Carbenia*.—see **Cnicus**

*Carbol-Fuchsine*.—see **Ziehl-Neelson's Carbol-Fuchsine**

*Carbon Bichloride*.—see **Carbon Dichloride**

*Carbon Bisulphide*.—see **Carbon Disulphide**

*Carbon Chloride, Julin's*.—see **Benzene, Perchloro-**

**Carbon Dichloride Merck** (60

(Carbon Bichloride; Tetrachlorethane; Tetrachlorethylene; Perchlorethylene).—Fr. carbon trichloride ( $C_2Cl_6$ ) by dissociation.— $C_2Cl_4$ , or  $CCl_2.CCl_2$ .—Colorl. liq.; ether. odor.—*Sp. Gr.* 1.619 at 20° C.—*Boil.* 121–122° C.

*Carbon Dioxide*.—see **Acid Carbonic, Liquefied**

**Carbon Disulphide Merck**.—Highly Purified (1

(Carbon Bisulphide).— $CS_2$ .—H'ly refract., clear, colorl., inflam. liq.; str., peculiar odor; sharp, arom. taste.—*Sp. Gr.* 1.270–1.272 at 15° C.; (1.256–1.257 at 25° C.—U. S. P.).—*Sol.* A., E., C., fixed & volat. oils.—*Boil.* 46–47° C.—*Antisep.*; Counter-irrit.; Local Anesth.—*Uses*: Chiefly techn.—*Intern.*, diar., gastric cancer, dyspep., &c.—*Extern.*, counter-irrit. in enl. lymph. glands, in rheum., neural., &c.—*Techn.*, as solvent of fats, resins, & oils fr. seeds & oil cake, for dissolv. sulphur & phosphorus in manuf. matches, in varnishes & lacquers, preservative, destroying insects, burning out vats & barrels, driving

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



machinery, manuf. various chem. compounds for photographic & galvanoplastic purposes, filling glass prisms, &c.—*Dos.* 3-10 ℥ (0.2-0.6 Ce.), in milk or mucilage.—*Test.* Keep cool & well stoppered. Highly inflammable!

**Carbon Disulphide Merck.—Deodorized** (1)  
**do.—Commercial** (1)

**Carbon Disulphide Merck.—Reagent** (2)  
*CS*—Clear, colorl., neutr. liq.—*Sp. Gr.* 1.270-1.272.—*Boil.* 46-47° C.—*Tests:* (*Res.*) evap. 50 Ce. on W.-bath—none weighable—*H<sub>2</sub>S*; *o. Foreign Organ. S. Compounds*) a. shake 10 Ce. w. lead carbonate—latter not colored brown; b. shake 2 Ce. w. a globule metal. mercury—bright surface of latter should not be covered w. dark pulver. coating.—(*H<sub>2</sub>SO<sub>4</sub>*; *H<sub>2</sub>SO<sub>5</sub>*) shake 10 Ce. w. 5 Ce. *H<sub>2</sub>O*—latter should not redden or decolorize blue litmus paper.—*Uses:* Organ. synthesis, principally as solvent.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Carbon Hexachloride.**—see **Carbon Trichloride**

**Carbon, Mineral.**—see **Graphite**

**Carbon Tetrachloride Merck** (2)  
(Tetrachloromethane; Perchloromethane).—Fr. carbon disulph. & chlorine gas by heat.—*CCl<sub>4</sub>*.—Heavy, colorl. fluid; agre., arom. odor.—*Sp. Gr.* 1.632 at 0° C.—*Sol.* A., E.; insol. W.—*Boil.* 77° C.—*Local Anesth.*—*Uses:* Tie douloureux, dysmenor., &c., & in dental techn.—*Techn.*, as non-inflammable substit. for benzoin for cleansing, & as solvent for fatty lakes, caoutchouc, resins, nitrocellulose, &c.; for exterminating destructive insects in wheat, &c.; manuf. of rubber goods, extracting oil fr. seed, dissolving out fat fr. bones, wool, & polishing rags; manuf. of sulphocarbonates & xanthogenates of the alkalies; manuf. of viscine; solvent for alkali cellulose, &c.

**do. Merck.**—Highest Purity, free fr. sulphur (2)

**Carbon Trichloride Merck** (30)  
(Hexachlorethane; Perchlorethane; Carbon Hexachloride; Tetrachlorethylenedichloride).—Fr. chlorine w. ethyl & ethylene chlorides in sunshine.—*C<sub>2</sub>Cl<sub>6</sub>* or *CCl<sub>3</sub>.CCl<sub>3</sub>*.—Colorl. cryst.; camphor. odor.—*Sol.* A., E.—*Melt.* 184° C.

**Carbonic Anhydride.**—see **Acid Carbonic, Liquefied**

**Carborundum Merck** (10)  
Cryst. silicon carbide, SiC.—Fr. coke & sand in electric furnace.—Exceedingly hard cryst. (9.5); hardness between that of sapphire & of diamond.—*Sp. Gr.* 3.23 at 15° C.—*Uses:* Polishing & sharpening; abradant; 3-4 times more effective than corundum; instead of ferro-silicon in iron & steel industries; in manuf. por-

celain, polishing granite, smoothing bisque ware, manuf. "emery" paper, polishing glass, &c.

**Carbothialdine Merck** (40)

(Diethideneannomum Thiocarbamate; Diethylidene Dithiocarbamate).—Fr. carbon disulph., by alcohol. solut. aldehyde amm.—*C<sub>8</sub>H<sub>10</sub>N<sub>2</sub>S<sub>2</sub>* or *NH<sub>4</sub>CSN(CH<sub>3</sub>)CH<sub>3</sub>*.—Yellowish-red cryst.—*Sol.* in acids; sl. in A.

**Cardamom.**—U. S. P.

Dried, nearly ripe fruit of *Elettaria repens* (Sonnerat) Baillon, (L. Cardamomum, Maton). Zingiberaceae.—*Habit.*; Malabar; cult. in India & Ceylon.—*Etymol.*: Fr. Grk. "kardia," heart, & "animos," spice, i.e., noble spice. "Repens," fr. Lat. "repo," to creep, i.e., the stem inclines to creep on the ground.—*Constit.*: Resin; fixed and volat. oils; albuminoids; manganese.—*Stomachic*; Carmin.; Stim.; Aromat.; Condiment; Spice.—*Doses:* 5-15 grains (0.3-1 Gm.) in powd.—*Fld. extr.*, 10-30 ℥ (0.6-2 Ce.).—*Comp. fld. extr.* (cardamom, cinnamon, caraway, & cochineal), 15-60 ℥ (1-4 Ce.).

**Cardol Merck.**—Pruriginous (10)

Non-volat. oil fr. *Anacardium orientale*, & fr. *Semecarpus Anacardium*, L. fil.—Dark-brown, oily liq.—*Sol.* A., E.—Rubef.

**do. Merck.**—Vesicatory (11)

Fr. *Anacardium occidentale*.—Oily, yellow or dark-brown liq.—*Sp. Gr.*, abt. 0.978.—*Sol.* A., E.—*Uses:* Vesicant. For touching granulations, warts, corns, &c. Have skin dry; does not act when moist.—*Techn.*, in indelible inks; the written characters are moistened w. lime-water.—*Caution.* Use not free from danger.

**Carduus.**—see **Cnicus**

**Carduus Marianus**

(St. Mary's Thistle; Milk Thistle; Mary Thistle). Seed of *Silybum Marianum* Gaertner (*Carduus marianus*, L.). Composite.—*Habit.*: Central Europe.—*Etymol.*: Fr. Lat. "carduus," spiny, fr. the Celtic "ard," a point. "Marianus," fr. "Maria," whose milk, according to a legend, is said to have fallen on the lvs. of the plant.—*Constit.*: Fixed oil; tannin.—*Uses:* Jaundice & other hepatic affect.; also in hemorrhage & retention of menses.—*Dose:* Aqu. extr., 5 grains (0.3 Gm.) several t. p. d.

**Carex**

(Sand Sedge; Sand-star; Red Couch Grass; German Sarsaparilla).—Rhizome of *Carex arenaria*, L. Cyperaceae.—*Habit.*: Europe; advent. in U. S.—*Etymol.*: Lat. "carere," to be absent, wanting, i.e., the seeds are absent in the upper ears, because these are usually male in character.—*Constit.*: Volat. oil; resin.—Diuret.; Aper.; Alter., like sarsaparilla.

**Carica Papaya.**—see **Papaw**

**Carlina**

(Carlina Thistle; Ground Thistle).—Root of

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Carlina acaulis*, L. Compositæ.—*Habit.*: Europe.—*Etymol.*: According to some, the plant was named for Charlemagne; according to others, for Charles V.; most probably, however, "carlina" is derived fr. the Italian "cardina," a small thistle.—*Constit.*: Volat. oil; tannin; resin.—*Diuret.*; *Febrif.*; *Emmen.*; large doses *Purgat.*—The root must not be confounded w. a very similar root fr. the south-Italian *Atractylis gummifera* (masticogna), which is very poisonous.—*Dose* 10–20 grains (0.6–1.3 Gm.).

**Carlsbad Salt.**—see **Salt, Carlsbad**

**Carmine Merck.**—**Naccarat, I.**—Pure, lumps (25 Pigment fr. dried female of *Coccus cacti*, L. (Cochineal).—*Constit.*: Carmine acid, alumina, lime & org. acids.—*Sm.*, brill.-red lumps.—*Sol.*, in W. in presence of amm. or o. caustic alkalies, alkali carbonates, & borax; also acidulated W.—*Uses*: Dye, in microscopy, inks, & as indicator.

**do. Merck.**—**Naccarat, II.**—Pure, lumps (20

**do.**—*Solution.*—*N. F.*

Fr. 65 Gm. carmine, 365 Cc. ammon. water, & 365 Cc. glyc. w. W. to make 1000 Cc.

**Carmine Merck.**—**Reagent.**—**Naccarat** (30 Bright-red, light pieces; v. friable, & reducib. to fine powd.—*Sol.*  $\text{NH}_4\text{OH}$ ; insol. W. & dil. acids.—*Tests*: (*Solub.*) 0.15 Gm. alm. compl. sol. in 5 Cc.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96) + 20 Cc.  $\text{H}_2\text{O}$  (solut. has violet-red color); only few floccs should remain.—(*Ash*) cautiously incin. 0.25 Gm. in porcel. crucib. —not more than 0.02 Gm. ash (observe odor during incinerat.; Br indicates pres. of eosine lakes; phenol indicates pres. of picronin lakes).—*Uses*: Stain in microscopy; also indicator—the red ammoniacal solut. becomes yellowish-red on addition of acids.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Carmine, Acid Alcoholic.**—see **Grenacher's, or Mayer's, Alcoholic Acid Carmine**

**Carmine-Fibrin Grützner-Merck** (25 Fr. blood fibrin by ammoniacal solut. carmine.—Dark, cherry-red, crumbly mass.—Swells up in 0.1% HCl without dissolving; if pepsin present, however, dissolves, and more or less rapidly in proport. to quant. or strength of pepsin, the solut. then acquiring a red color.—*Uses*: Estimating pepsin by observing red color developed in solutions & comparing w. standard color solutions.

**Carmine Oxalate.**—see **Thiersch's Carmine Oxalate**

**Carmine Paper**

Wh. paper impregn. w. an ammoniacal solut. carmine & dried.—Indicator for acids (yellowish-red color) & alkalies (purplish-red color).

**Carnauba**

(Brazilian Wax Palm).—Root of *Copernicia* (*Corypha*) *cerifera*, (Arruda) Mart. Palmæ.—*Habit.*: Brazil; Pernambuco.—*Etymol.*: "Carnauba" is the Brazilian name of the plant. "Copernicia," fr. Copernicus, in whose honor the plant was named. "Cerifera" fr. Lat. "cera," wax, & "ferre," to bear, i.e., wax-bearing or yielding.—*Constit.*: Volat. oil; alkaloid; tannin; coloring matter; resin.—*Diuret.*; Blood Purifier, like sarsaparilla.

**Carnauba Wax**

(1

(Brazil Wax).—Exudation fr. upper surface of lvs. of the wax palm, *Copernicia* (*Corypha*) *cerifera*, Mart. Palmæ.—*Habit.*: Brazil.—Hard, amorph., light-yellow to pale, dirty, greenish lumps; brittle & pulverizable; semi-resinous fracture & charact. polish; pecul. agre. odor.—*Sol.* E.; boil. A., hot oil turp.—*Melt.* 84–86° C.—*Sp. Gr.* 0.995–1.000 at 15° C.—*Constit.*: Myricyl alcohol,  $\text{C}_{30}\text{H}_{61}\text{OH}$ ; cerotinic acid; cerotinic acid myricyl ester,  $\text{C}_{27}\text{H}_{55}\text{O}_2\text{C}_{30}\text{H}_{61}$ .—*Uses*: *Tech.*, as a substit. for beeswax; wax varnishes; candles, &c.

**Carniferrin**

(Iron Phosphosareolactate).—Tastel. powd.—*Sol.*, dil. acids & alkal.—Readily absorbable chalybeate nutritive.—*Uses*: Anemia, chlorosis, &c.—*Dose*: Adults, 8 grains (0.5 Gm.) 3 t. p. d.; children, 3–5 grains (0.2–0.3 Gm.) daily.

**Carnine Merck**

(4000

Fr. meat extr.— $\text{C}_7\text{H}_8\text{N}_4\text{O}_3 + \text{H}_2\text{O}$ .—Wh. powd.—*Sol.*, v. sl. W.

**Carnine Hydrochloride Merck**

(4000

$\text{C}_7\text{H}_8\text{N}_4\text{O}_3\text{HCl}$ .—Fine, wh. need.—*Sol.* W.

**Carnotine.**—see **Primuline Yellow**

**Carnoy's Alcohol-Acetic Acid**

Mixt. 1 vol. glacial acetic acid & 3 vol. absol. alcohol.—*Uses*: Fixing animal organisms, sections, &c., before staining, particularly w. hematoxylin.

**Caro's Reagent**

Satur. solut. potass. persulphate in concen. sulphuric acid. With this reagent, aniline may be directly converted into nitrobenzene (reversed Zinin reaction, i.e., the conversion of nitro- into amido- groups).

**Carob.**—see **Jacaranda**

**Carpaine Merck.**—Pure, cryst.

(12000

Alkaloid fr. lvs. of *Carica Papaya*, L. (Tropical melon-tree).— $\text{C}_{14}\text{H}_{25}\text{NO}_2$ .—Wh. cryst.—*Sol.* A., E., C., amyl alcohol, B.—*Melt.* 119–120° C.—Cardiac Tonic, Diuret., &c., like digitalis.—*Uses*, *Doses*, &c.: As of the hydrochloride.

**Carpaine Hydrochloride Merck**

(12000

$\text{C}_{14}\text{H}_{25}\text{NO}_2\text{HCl}$ .—Wh., bitter cryst.—*Sol.* W.—Card. Tonic; Diuret., &c., like digitalis.—

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Uss.* Mitral insufficiency & aortic stenosis.—  
*Dose.* Daily  $\frac{1}{6}$ – $\frac{1}{4}$  grain (0.01–0.02 Gm.).—*Inf.*  
 $\frac{1}{10}$ – $\frac{1}{6}$  grain (0.006–0.01 Gm.) per day

**Carpené's Reagent.**—For tannin in wine

Satur solut. zinc acetate in dil. ammonia water.—Precipitates tannin, but not gallic acid, ppt. insol. in W.,  $\text{NH}_4\text{OH}$ , & zinc-acetate solut.

**Carrageen.**—see **Chondrus**

**Carthagen Bark.**—see **Cinchona Carthagen**

**Carthamin Merck.**—Highest Purity, scales (800

(Carthamic Acid; Safflor-carmin; Safflor-red).—Coloring prin. fr. *Carthamus tinctorius*, Willd. (Safflower).— $\text{C}_{21}\text{H}_{19}\text{O}_2$ .—Dark-red scales or powd.—*Sol.*, dil. alkali carbonates; solut's rapidly decomp.—*Uses:* Dye.

do. Merck.—Pure, powd. (600

**Carthamus**

(Safflower; African Saffron; Thistle Saffron; American Saffron; False or Bastard Saffron; Dyer's Saffron).—Florets of *Carthamus tinctorius*, L. Compositae.—*Habit.*: Levant; Orient; cultiv. extensively in Europe & America.—*Etymol.*: Fr. Arabic "quartama," pigment, or "kartham," to dye red.—*Constit.*: Carthamin (carthamic acid,  $\text{C}_{21}\text{H}_{19}\text{O}_2$ ); safflor-yellow.—Diaphor.; Astring.; Emmen.—*Uses:* Hasten eruption in measles, scarlet fever, &c.—*Techn.*, in dyeing; surrogate for Spanish saffron; color for cosmetics.—*Doses:* 60–120 grains (4–8 Gm.) in infus.—*Fld. extr.*, 15–60  $\text{m}$  (1–4 Ce.).

**Carum.**—U. S. P.

(Caraway).—Dried fruit of *Carum Carvi*, L. Umbelliferae.—*Habit.*: Europe; Central & Western Asia; cult. in England, Russia, U. S., &c.—*Etymol.*: Lat. "careum," fr. Grk. "karon," after Caria, in Asia Minor, its original habitat. "Carvi" Lat. for "carvey," fr. Arab. "karawya." Eng. caraway.—*Constit.*: Volat. & fatty oils; resin; sugar; tannin; mucilage.—Carmin.; Stim.; Diuret.; Stomachic.—*Uses:* Particularly for infants in flatulent colic; also as spice in cakes, &c.—*Doses:* 10–30 grains (0.6–2 Gm.).—*Fld. extr.*, 10–30  $\text{m}$  (0.6–2 Ce.).

**Carum Copicum.**—see **Ajowan**

**Carvacrol Merck** (30

(Oxycymol; Beta-cymophenol).—*Constit.* of oils of Cretan Origanum, thyme, & summer savory.— $\text{C}_{10}\text{H}_{14}\text{O}$ , or,  $\text{C}_6\text{H}_5\text{CH}_3[\text{1}].(\text{CH}_3)_2\text{CH}[\text{4}].\text{OH}[\text{2}]$ .—Colorl. liq.—*Sp. Gr.* 0.981 at 15° C.—*Boil.* 236–237° C.—Odor like thyme.—*Uses:* Perfumery.

**Carvol.**—see **Oil Caraway, Extra Strong**

**Caryophyllin**

*Constit.* of cloves.— $\text{C}_{20}\text{H}_{32}\text{O}_2$ .—Stellate groups silky need.—*Sol.*, boil. alkali; sl. in A.—*Subl.*, abt. 285° C.

**Caryophyllus.**—U. S. P.

(Cloves).—Dried flower-buds of *Eugenia aromatica*, Kuntze. (E. caryophyllata, Thunb.; *Caryophyllus aromaticus*, L.). Myrtaceae.—*Habit.*: Molucca Islands, Zanzibar, Sumatra, S. America, W. Indies, &c.—*Etymol.*: Fr. Grk. "eu," well, & "genes," born, or race (plant was named for Prince Eugene of Savoy); *Caryophyllus*, fr. Grk. "karyon," nut, & "phyllon," leaf (fr. appearance of dried flowers).—*Constit.*: Etheral oil; eugenol,  $\text{C}_{10}\text{H}_8\text{OCH}_2\text{OH}$ ; caryophyllin,  $\text{C}_{20}\text{H}_{32}\text{O}_2$ ; tannin; gum; resin (tasteless).—*Stim.*; Stomach.; Carmin.; & Antiemet.—*Uses:* Flatul. colic, dyspep., & to arrest vomiting.—*Techn.*, manuf. oil cloves, eugenol, vanillin, chocolate; also in baking.—The insp. aqu. extr. is employed for clearing corneal opacities, a solut. being instilled twice daily at intervals of 5–10 minutes.—*Doses:* 5–10 grains (0.3–0.6 Gm.).—*Fld. extr.*, 5–10  $\text{m}$  (0.3–0.6 Ce.).

**Casca Bark.**—see **Sassy Bark**

**Cascara Amarga**

(Honduras Bark).—Bark of *Pieramnia pentandra*, Sw. (P. antidesma, Sieb. [?]). Sinarubaceae.—*Habit.*: West Indies; Mexico.—*Etymol.*: Fr. Spanish "cascara," & "amarga," bitter bark (fr. the bitter taste of bark); "pieramnia," fr. Grk. "pikros," bitter; & "antidesma," fr. Grk. "anti," against, & "desma," band, (the inner bark is used).—*Extern.* bark is  $\frac{1}{25}$ – $\frac{1}{3}$  in. (1–3 Mm.) thick, brownish-gray, striated, w. numerous longit. fissures; intern. bark is  $\frac{1}{8}$ – $\frac{1}{6}$  in. (3–4 Mm.) thick, deep-brown, hard & firm, bitter, and shows numerous white spots in section; commercial bark usually deprived of its outer bark.—*Constit.*: Pieramnine.—Tonic; Alter.—*Uses:* Constit. syphilis, chron. eczema, & chron. nephritis.—*Doses:* 30–60 grains (2–4 Gm.).—*Fld. extr.*, 30–60  $\text{m}$  (2–4 Ce.).—Powd. extr. (1:5), 5–10 grains (0.3–0.6 Gm.).

**Cascara Sagrada.**—U. S. P.

(Sacred Bark; Chittam, Chittam, or Chittim Bark; Pursliana Bark; Persian Bark; Bearberry; Bearwood).—Bark of *Rhamnus Purshiana*, De C. Rhamnaceae.—*Habit.*: Northern Idaho, west to Northern California.—*Etymol.*: Fr. Spanish "cascara," bark, & "sagrada," sacred; *Rhamnus*, fr. Grk. "rhamnos," buckthorn, & "Pursliana," fr. the botanist, Frederick Pursh (1774–1820).—The bark loses its emetic properties on being kept for 1 year.—*Constit.*: Bark, Emodin,  $\text{C}_{21}\text{H}_{20}\text{O}_5$ ; frangulin,  $\text{C}_{21}\text{H}_{20}\text{O}_6$ ; 3 resins; tannin; purshianin; cascacin; chrysorubin; chrysophanic acid; fixed and volat. oils.—*Berries:* Frangulin, rhamnin, and rhamnocatartin.—*Purg.*; Tonic; Febr.—*Uses:* Chron. constip.; w. more potent remed. in rheumat.—*Berries* are diuret. & laxat.—*Doses:* 30–120 grains (2–8 Gm.) in powd.—*Fld. extr.*, 30–120  $\text{m}$  (2–8 Ce.).—Hydro-alcoh. extr., dry, 2–10 grains (0.12–0.6 Gm.).—Hydro-alcoh

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



extr., soft, 5-15 grains (0.3-1 Gm.).—Tinct., 10-60 M (0.6-4 Ce.).

### Cascarilla.—U. S. P.

(Eleuthera Bark; Sweet-wood Bark).—Bark of *Croton Eluteria*, Bennett, Euphorbiaceæ.—*Habit.*: Bahama Islands; Cuba; Hayti.—*Etymol.*: "Cascarilla" is the dimin. of "cascara," Spanish for bark; "croton" fr. Grk. "kroton," dog-tick, fr. resemblance of seeds; "Eleuthera" is one of the Bahama Islands.—Broken quills or curved pieces up to 4 in. (100 Mm.) long, abt.  $\frac{1}{12}$  in. (2 Mm.) thick; grayish, corky layer, tissue dull-brown; inner surface smooth; fract. short and resinous; warm, bitter taste.—*Constit.*: Volat. oil (1.6%); cascarillin,  $C_{12}H_{18}O_4$ ; resin (15%); tannin; betaine.—*Stim.*; Tonic; Febrif.—*Uses*: Intern. fevers, dyspep., chronic diar., colic, &c.; also as an addition to smoking tobacco for flavoring.—*Doses*: 10-40 grains (0.6-2.6 Gm.); large doses are emetic.—*Alcoh. extr.*, 2-6 grains (0.12-0.36 Gm.).—*Fld. extr.*, 15-40 M (1-2.6 Ce.).—*Aqu. extr.*, 8-24 grains (0.5-1.5 Gm.).

### Casein Merck.—Commercial

(1

Albuminoid fr. milk.—Wh. to yellowish gran. powd.—*Sol.*, alkali.—*Uses*: Food (cheese).—*Tech.*, in leather industr., binder in dyes for paper, substitute for linseed oil in paints & for glue in cabinet making, substitute for albumin, varnish, & shellac; lakes, celluloid, gums, & gelatin; manuf. films, substitute for horn & hard rubber, &c.

### do. Hammarsten-Merck

(15

Albuminoid fr. milk.

### do. Ritthausen-Merck.—From plants

(75

(Vegetable Casein).—Chiefly legumin & alkali albuminate.

*Casein-Ammonia*.—see **Eucasin**

*Casein, Plant*.—see **Legumin**

*Casein, Serum*.—see **Globulin, Para-**

*Casein-Sodium*.—see **Nutrose**

*Casein, Vegetable*.—see **Casein, from Plants; Legumin**

*Cassava Starch*.—see **Tapioca**

*Cassell's Green*.—see **Barium Manganate**

### Cassia Buds

Unripe, dried fruit of *Cinnamomum aromaticum*, Nees, & other sp. of *Cinnamomum*, Laurineæ.—*Habit.*: China.—*Etymol.*: "Cassia" fr. Grk. "kasía," perfume, or fr. Hebrew "quetsioth, quatsa," to peel off (the bark). See also Cinnamon, Cassia.—Buds resemble cloves in appearance, but are smaller; nail-like shape, with round heads; brown color; cinnamon-like odor; pungent taste.—*Constit.*: Volat. oil; tannin.—*Uses*: Arom. & condiment, like cinnamon bark.

### Cassia Fistula.—U. S. P.

(Purging Cassia; Drumstick; Indian Laburnum; Pudding-Pipe; Pudding-Stick).—Dried fruit of *Cassia Fistula*, L. (*Cathartocarpus Fistula*, Persoon). Leguminosæ.—*Habit.*: Upper Egypt; E. India; cultiv. in tropical America & Africa.—*Etymol.*: Grk. "kasía," perfume, or fr. Hebrew "quetsioth, quatsa," to peel off (the bark). Dioscorides used the term "kassia" to designate the bark of *Laurus Cassia*. "Fistula," fr. Lat. "fistula," a tube, pipe, or cane. "Cathartocarpus," fr. Grk. "kathartikos," purging, & "karpos," fruit.—Cylindrical, 16-24 inches long, abt. 1 in. diam.; blackish-brown; divided intern. transversely into numerous cells, each containing a reddish-brown, glossy seed imbedded in a blackish-brown sweet pulp; prune-like odor.—*Constit.*: Pulp contains sugar (abt. 60%); gum; tannin; albuminoids.—*Lax.*; Cath. Given as confect. of senna.—*Dose* 1-2 dr. (4-8 Gm.) lax.; 1-2 oz. (30-60 Gm.) cath.

*Cassius' Purple*.—see **Gold-Tin Purple**

### Castanea

(Chestnut).—Lvs. of *Castanea dentata* (C. vesca Gaert., var. Americana), Sudworth.—*Habit.*: North America (Maine to Florida, west to Ont., Mich. & Arkansas).—*Etymol.*: Fr. Grk. "Kastanon," an ancient town in Thessaly; "dentata" fr. Lat. "dens," tooth, i.e., the lvs. are dentate; "vesca" fr. Lat. "vescus," edible.—*Constit.*: Tannin; gum; albumin; resin.—Tonic; Astring.; Mild Sed.—*Uses*: Popular remedy in whoop-cough.—*Dose* 30-120 grains (2-8 Gm.).—*Fld. extr.*, 30-120 M (2-8 Ce.).

### Castor

(Beaver, Canadian & Siberian).—Dried preputial follicles, with their secretions, of the common beaver, *Castor Fiber*, L. Rodentia.—*Habit.*: Northern hemisphere, betw. 33 & 68° north latitude.—*Etymol.*: Fr. Grk. "kastor," the beaver.—Follicles in pairs, ea. abt. 3 inches long & 1-4 oz. in weight, club-shaped, wrinkled, brown or blackish; contents brown, hard, friable; peculiar odor; acrid, nauseous, bitter taste, Siberian (Russian) castor somewhat larger than the Canadian castor. Alcohol dissolves abt. one-half.—*Constit.*: Ethereal oil (abt. 2%); resin (14-50%); castorin; salicin; cholesterin; benzoic acid; salicylic acid.—*Stim.*; Antispasm.; Emmen.—*Uses*: Especially as nerveine in hysteria, chorea, & epilepsy.—*Dose* 2-15 grains (0.12-1 Gm.) several t. p. d.

*Castor Bean*.—see **Ricinus**

### Catechin Merck

(25

(Catechuic, or Catechinic, Acid).—Fr. catechu. — $C_{12}H_{20}O_6 + 5H_2O$  (Liebmann & Tauchert).—Amorph., yellow powd.—*Sol.* W., A., acetic ether, alkalies.—*Uses*: Techn., as a dye, & in tanning.

*Catechol*.—see **Pyrocatechin**

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Catechu**

(Cutch; Black Catechu; Pegu Catechu; Terra Japonica Catechu).—*Extr.* prepared fr. wood of *Acaia Catechu* (L. fil., Willd., & A. Suma, Kurz). Leguminosa.—*Habit.*: India; Hindustan; Ceylon; natur. in Jamaica.—*Etymol.*: Fr. East Indian name of the tree, "cate," & "chu," juice. Or, "kutch," "cutt," the East Indian for the juice of the tree, & applied to all astring extr.—Irregular masses, containing fragments of lvs.; dark-brown, brittle, somewh. porous & glossy when freshly broken; nearly inodorous; strongly astring. & sweetish taste.—*Constit.*: Catechutannic acid, 25-48%; 2-10% catechin (catechuin, or catechinic or catechuic acid,  $C_{15}H_{15}O_6$ ); catechu red; quercetin; gum.—*Strong. Astr.*: Mild Tonic.—*Uses*: *Medic.*, diarrh., gonorr., leucorr., gleet, hemorrh., irrit. coughs, spongy gums, &c.—*Techn.*, in tanning; dyeing fabrics brown & black.—Also in toilet preparations (mouth washes, powd., gargles, &c.).—*Doses*: 5-30 grains (0.3-2 Gm.).—*Aqu. extr.*, 5-20 grains (0.3-1.3 Gm.).—*Fld. extr.*, 10-30  $\mathfrak{m}$  (0.6-2 Ce.).—*Comp. tinct.* (catechu & cassia cinnamon), 30-150  $\mathfrak{m}$  (2-12 Ce.).

**Catechu Brown**

(Metaphenylenedisazobiamidobenzeneazometaphenylenediamine Hydrochloride).—Diaz compound fr. Bismarck Brown and phenylenediamine.— $C_{20}H_{31}N_5Cl_2$ .—Dark-brown powd.—*Sol.* W., A.—*Uses*: Tanning & dyeing cotton & silk.

**Cathartin.**—see **Acid Cathartic**

*Catmint.* }  
*Catnip* (or *-nep*). }—see **Nepeta**

**Caulophyllin (Eclectic)** (10

Resinoid fr. root *Caulophyllum thalictroides*, Mich. (Blue Cohosh).—Brown powd.—*Sol.* A.—*Diur.*; *Diaph.*; *Anthelm.*; *Emmen.*—*Uses*: *Parturit.* Claimed to have direct influence on uterus.—*Dose*  $\frac{1}{2}$ -1 grains (0.03-0.25 Gm.).

**Caulophyllum**

(Blue Cohosh; Squaw Root).—Rhizome & roots of *Caulophyllum thalictroides*, Mich. (Leontice thalictroides, L.). *Berberidac.*—*Habit.*: Canada to North Carolina, Missouri & Nebraska; Japan.—*Etymol.*: Fr. Grk. "kaulos," stalk or stem, & "phyllon," leaf, i.e., the lvs. terminate in a manner to give them the appearance of being a continuation of the stem.—*Constit.*: Leontin; caulophyllin; saponin; 2 resins, &c.—*Diuret.*; *Emmen.*; *Demule.*; *Diaphor.*; *Antispasmod.*—*Uses*: Amenorr., dropsy, colic, epilepsy, cramp, & parturition.—*Doses*: *Alcoh. extr.*, 2-5 grains (0.12-0.3 Gm.).—*Fld. extr.*, 10-30  $\mathfrak{m}$  (0.6-2 Ce.).

**Cayaponia**

(Purga do Gentio).—Fruit of *Cayaponia caboclea*, Mars, or *C. globulosa*, Silva Manso. Cucurbitaceae.—*Habit.*: South America (Brazil).—*Etymol.*: Both "cayaponia" & "caboclea"

are of Brazilian origin, being the aboriginal names of the plants.—*Constit.*: Cayaponine = clatrin (Pechelt).—*Drast. Purg.*: Powerful Laxative.—*Uses*: Chron. cutaneous dis.

**Cayenne Pepper.**—see **Capsicum**

**Cay Note.**—see **Ephedra**

**Ceanothin (Eclectic)**

Fr. *Ceanothus americanus*, L. (New Jersey Tea).—Brown powd.—*Purg.*; *Alter.*—*Uses*: Syph., dysent., & sore throat.—*Dose* 1-2 grains (0.06-0.12 Gm.).

*Cebu.* } —see **Tagulaway**  
*Cebur.* }

**Cedrin Merck.**—Cryst. (7000

Bitter prin. fr. seeds *Simaba Cedron*, Planch.—Colorl. cryst.; bitter taste.—*Sol.* A., C.; sl. W.—*Antiper.*—*Uses*: Rec. intermitt. fever.—*Doses* of  $\frac{1}{15}$  grain (0.004 Gm.) hypoderm. cause dizziness.

**Cedron Seeds.**—see **Simaba**

**Cedrus**

(Cedar).—Wood of *Cedrus Libani*, Barr. (*Larix Cedrus*, Mill.). *Coniferae*.—*Habit.*: Asia Minor.—*Etymol.*: Grk. "kedros," cedar, fr. "kaicin," to burn, referring to the use of the wood as an incense or for fumigating.—*Constit.*: Volat. oil; resin.—*Uses*: Source of cedar oil.

**Celandine.**—see **Chelidonium**

**Celastrine**

(Katrine).—Fr. *Celastrus edulis*, Vahl.—Minute, wh. cryst.—*Stim.*—*Uses*: As of coca.

**Celastrus**

(Staff Tree; False Bittersweet; Waxwork; Fevertwig).—Bark of *Celastrus scandens*, L. *Celastraceae*.—*Habit.*: Ontario to Manitoba, & south to North Carolina & N. Mexico.—*Etymol.*: Fr. "kelastros," the Grk. name for an evergreen tree. Lat. "scandens," climbing, referring to the plant's habit of twining about trees, or each other, & ascending to a considerable height.—*Constit.*: Celastrine; 2 resins; volat. oil; starch; gum; coloring matter.—*Diuret.*; *Diaphor.*; *Alter.*—*Uses*: Domestic practice, dropsy, & febrile condit.; induces perspiration.—*Dose*: *Fld. extr.*, 30-60  $\mathfrak{m}$  (2-4 Ce.).

**Celery.**—see **Apium**

**Celloidin.**—Shreds (18

20% pure pyroxylin.—Tough, gelat. tablets, chips, or shreds; sl. milky-wh. transp.—*Sol.*, all prop., A., E.—*Uses*: Imbedding sections in microscopy; also in electrotechn., photography, (celloidin paper), galvanoplasty, &c.

**Cellotropin**

(Monobenzoyle-arbutin).— $OC_6H_3O_6.C_6H_4.OC_6H_5CO_2$ .—Wh. powd., or fine need.; odorl.; tastel.—*Sol.* 80 W. at 100° C.; 1300 W. at 15° C.; 1800 W. at 9° C.; eas. A.; insol. E., B., C.—

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



# MERCK'S 1907 INDEX

*Melt.* 184.5° C.—*Uses:* Tuberc., scrof.—*Dose* 5–8 grains (0.3–0.5 Gm.).

## Celluloid

(Zylonite).—Subst. prep. fr. gun cotton & camphor.—*Colorl.*, amorph. mass.—Softens in boil. W.—*Uses:* Techn.; elastic material for manuf. various useful articles (toilet requisites), &c.; in electrotechn., photogr., galvanoplasty, &c.; also in surgery, for bandages.

## Centaurea

(Blue Bottle; Bachelor's Buttons; Corn Centaury; French Pink; Flores Cyani; Corn Flower).—Flowers of *Centaurea Cyanus*, L. Compositae.—*Habit.*: Europe; cultiv. in gardens, & natur. in U. S.—*Etymol.*: Fr. Grk. "kyanos," deep blue, referring to the color of the flower. *Centaurea* fr. Grk. "Kentauros," Centaur, for whom the plant was named.—*Constit.*: Anthocyan; tannin.—*Diuret.*; *Febrif.*; also as addition to fumigating powds., &c.

*Centaury.*—see **Erythrea**

## Cephaeline Merck

Accompanies emetine in ipecac.— $C_{14}H_{20}NO_2$ .—Snow-wh., fine, interlacing need.; rapidly turn yellow.—*Sol.* E., caustic soda.—*Melt.* 96–102° C. (Paul & Cowaley).

## Cephaeline Hydrochloride Paul-Merck (4000

$C_{14}H_{20}NO_2.HCl$ .—Amorph., wh. to yellowish powd.—*Sol.* W. & A.—Much more eas. affected by light than emetine hydrochloride.—*Melt.* 96–98° C. (fr. ether); 102° C. when pptd. by  $NH_3$ .—*Uses:* Preferable to emetine as emetic.—*Dose*  $1/12$ – $1/6$  grain (0.005–0.01 Gm.).

*Cephalis.*—see **Ipecac**

## Cephalanthus

(Button Bush; Buttonwood).—Bark of *Cephalanthus occidentalis*, L. Rubiaceae.—*Habit.*: Canada to Florida and California.—*Etymol.*: Fr. Grk. "kephalos," head, and "anthos," flower, referring to the spherical flowers. "*Occidentalis*" refers to the occurrence of the plant in the Western Hemisphere.—*Constit.*: Cephalanthin; cephaletin; cephalin; resins; tannin.—*Antiper.*; *Antipyr.*—*Uses:* Domestic practice & malarial fever.—*Dose:* *Fld. extr.*, 30–60 m (2–4 Cc.).

## Cerasin (Eclectic) (15

(Prunin).—Fr. tincture *Prunus serotina*, Ehrhart (Wild Cherry).—Brown powd.—*Sol.* A.—Bitter Tonic; Sed.; Expector.—*Uses:* Cough in phth., bronch., & colds; gen'l debil. & palpit. of heart.—*Dose* 2–10 grains (0.12–0.6 Gm.).

## Cerasin from Gum

(Metarabic, or Metagummie, Acid).—Fr. gum arabic by heat. Native in cherry & beet gums.—Wh., insipid powd.

*Cerberid.*—see **Cerberin**

## Cerberin Merck (5000

(Cerberid).—Glucoside fr. fruit of *Thevetia Yccotli*, De C. —  $C_{25}H_{38}O_{12}$ .—Yellowish-wh., amorph., bitterpowd.—*Sol.*, hot W., dil. A.—*Cardiac Tonic*, like digitalin.—*Uses:* Heart dis.—*Dose*  $1/250$ – $1/60$  grain (0.00025–0.001 Gm.).

## Cercis

(Judas Tree; Red Bud).—Bark of *Cercis canadensis*, L. *Cesalpiniaceae*.—*Habit.*: Ontario & eastern U. S.—*Etymol.*: "Cercis," Grk. "kerkis," is the ancient name of the Old World Judas Tree. "*Canadensis*" refers to its habitat.—*Astring.*—*Uses:* *Diar.*, *dysen.*, *leucor.*, & *gleet.*—*Dose:* *Fld. extr.*, 15–60 m (1–4 Cc.).

## Cerebrin Merck (1000

Nitrogenous, phosphorus-free proximate principle from brain substance (not a so-called "animal extract").— $C_{80}H_{160}N_2O_{15}$  (Parcus).—Yellowish-wh., cryst. powd.—*Sol.* C., B., hot A. & hot glac. acetic acid; dil. alkalies; sl. in E., & in acetone; swells up in hot W.—N. B. Not a medicament! Possesses only physiological interest (see protagon).

## Cerebrum Merck.—Dried, powdered (30

Defatted and dried gray brain substance of calves.—1 part = 5 parts of the fresh organ.—*Uses:* *Neurasthenia*, *chorea*, *agoraphobia*, *psychoses*, &c.—*Dose* 30–60 grains (2–4 Gm.) p. d.

*Cerefolium.*—see **Anthriscus**

*Ceresin.*—see **Paraffin, Hard**

## Ceresin.—White

(Ozokerite; Earth Wax; Mineral Wax; Cerosin; Cerin).—Ozokerite purified by treat. w. conc. sulphuric acid & filtration through bone-black.—*Habit.*: Galicia; Baku; Utah; Tex.—*Etymol.*: Fr. Lat. "cera," wax. "Ozokerite" fr. Grk. "ozein," to smelt, & "keros," wax.—Wh., waxy cakes; odorl.; tastel.; fracture very much like that of white wax.—*Melt.* 74–80° C.—*Sp. Gr.* 0.92–0.94.—*Sol.*, abt. 35 absol. A.; also B., C., hot oils; insol. in W.; very stable toward oxid'g agents; non-saponifiable.—*Constit.*: Ceresin is a hydrocarbon of complex compos.—*Uses:* Substit. for white wax; size; candles; making bottles for holding hydrofluoric acid.

### do.—Yellow

Partly purified ozokerite.—*Habit.* & *Etymol.*: As of preceding.—Yellow, wax-like cakes or lumps; faint odor; tastel.; very stable toward oxid'g agents.—*Sol.* B., C., hot oils.—*Melt.* 75–85° C.—*Sp. Gr.* 0.85–0.95.—*Constit.*: Ceresin is a hydrocarbon of complex compos.—*Uses:* Substit. for wax; size; candles.

## Cereus

(Night-blooming Cereus; Large-flowered Cereus).—Branches & flowers of *Cereus* (*Cactus*) *grandiflorus*, Miller, *Cactaceae*.—*Habit.*: Tropical America.—*Etymol.*: "Cereus" fr. Lat. "cera," wax, referring to the resemblance of some species

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guainacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



to the shape of a wax candle. "Grandiflorus" fr. Lat. "grandis," great, & "florus," flowered, i.e., affording large flowers.—*Constit.*: Cactine; acrid, resinous glucoside; resins; fat; wax, &c.—*Card.* Stim.; Diuret.—*Uses*: In low fevers & in funet. & organ. dis. of heart; dropsy; hemiplegia; threatened apoplexy. Said to be devoid of cumul. action.—*Doses*: Fl. extr., 2-10 ml (0.12-0.6 Ce).—*Tinct.*, 5-20 ml (0.3-1.3 Ce).—*Max. D.* 30 ml (2 Ce.) every 4 hrs.

**Cerin.**—see **Acid Cerotic; Ceresin, White & Yellow**

**Cerise DN Merck** (6)  
Impure fuchsine (containing some phosphine).—*Uses*: *Techn.*, dyeing wool, silk, & leather.

**Cerium Merck.**—Fused & powder (4000)  
*Etymol.*: Named by Hisinger & Berzelius in honor of the planet Ceres, which was discovered in 1801, at the time element was discovered.—*Metal.*—Ce.—Iron color; pieces are ductile & malleable.—*Sp. Gr.* 6.728 at 15° C.—Tarnishes in moist air.

**Cerium Acetate Merck** (15)  
(Cerous Acetate).— $\text{Ce}_2(\text{C}_2\text{H}_3\text{O}_2)_6$ .—Wh. to reddish-wh., cryst. powd.; contains traces of lanthanum & didymium.—*Sol.* W., A.

**Cerium Benzoate Merck** (20)  
(Cerous Benzoate).— $\text{Ce}_2(\text{C}_2\text{H}_5\text{O}_2)_6$ .—Wh. to reddish-wh. powd.; contains traces of lanthanum & didymium.—*Sol.*, hot W., & hot A.

**Cerium Bromate Merck** (100)  
(Cerous Bromate).— $\text{Ce}_2(\text{BrO}_3)_6 \cdot 18\text{H}_2\text{O}$ .—Reddish-wh., cryst. mass; contains traces of lanthanum & didymium.—*Sol.*, eas. W.

**Cerium Bromide Merck** (25)  
(Cerous Bromide).— $\text{Ce}_2\text{Br}_6 \cdot 14\text{H}_2\text{O}$ .—Reddish-wh. cryst.; contains traces of lanthanum & didymium.—*Sol.* A.; sl. in W.—*Caut.* Keep well stoppered.

**Cerium Carbonate Merck** (10)  
(Cerous Carbonate).— $\text{Ce}_2(\text{CO}_3)_3 \cdot 5\text{H}_2\text{O}$ .—Light, wh. powd.; contains traces of lanthanum & didymium.—*Sol.*, dil. mineral acids; insol. W.

**Cerium Chloride Merck** (5)  
(Cerous Chloride).— $\text{Ce}_2\text{Cl}_6 \cdot 14\text{H}_2\text{O}$ .—Reddish-wh. cryst.; contains traces of lanthanum & didymium.—*Sol.*, v. eas. W. & A.

**do.**—Highest Purity (100)  
Colorl., transp. cryst.; free fr. other earths.—*Sol.*, v. eas. W. & A.—*Uses*: Incandescence lighting.

**Cerium Citrate Merck** (12)  
(Cerous Citrate).— $\text{Ce}(\text{C}_6\text{H}_5\text{O}_7)$ .—Wh. powd.; contains traces of lanthanum & didymium.—*Sol.*, dil. mineral acids; insol. W.

**Cerium Dioxide.**—see **Cerium Oxide**

**Cerium Hypophosphite Merck** (25)  
(Cerous Hypophosphite).— $\text{Ce}_2(\text{PH}_2\text{O}_2)_6 \cdot 2\text{H}_2\text{O}$ .—Wh. to reddish-wh. powd.; contains traces of lanthanum & didymium.—*Sol.*, dil. mineral acids.—*Uses*: Recom. in phth.

**Cerium Iodide Merck** (20)  
(Cerous Iodide).— $\text{Ce}_2\text{I}_6 \cdot 18\text{H}_2\text{O}$ .—Reddish-wh. cryst.; contains traces of lanthanum & didymium; decomposes readily w. separation of iodine.—*Sol.*, v. eas. W., A.—*Caut.* Keep well closed.

**Cerium Lactate Merck** (15)  
(Cerous Lactate).— $\text{Ce}(\text{C}_3\text{H}_5\text{O}_3)_3(?)$ .—Wh. to reddish-wh. powd.; contains traces of lanthanum & didymium.—*Sol.*, diffie. W.

**Cerium Malate Merck** (10)  
(Cerous Malate).— $\text{Ce}_2(\text{C}_4\text{H}_4\text{O}_5)_3$ .—Wh. to reddish-wh. powd.; contains traces of lanthanum & didymium.—*Sol.* W.

**Cerium Nitrate Merck.**—Cerous (4)  
 $\text{Ce}_2(\text{NO}_3)_6 \cdot 12\text{H}_2\text{O}$ .—Reddish-wh. cryst.; cont. traces of lanthanum & didymium.—*Sol.*, eas. W. & A.

**do.**—Highest Purity (30)  
Colorl., transp. cryst.; free fr. other earths.—*Sol.* W. & A.—*Uses*: 1% cerous nitrate w. 99% thorium nitrate used in manuf. of incandescence mantles.

**Cerium Oxalate Merck.**—Pure (1)  
(Cerous Oxalate).— $\text{Ce}_2(\text{C}_2\text{O}_4)_3 \cdot 9\text{H}_2\text{O}$ .—Alm. wh., cryst. powd.; odorl.; tastel.—*Sol.*, dil. sulphuric acid, or hydrochl. acid; insol. W., A., E., alkalies.—*Sed.*: Nerve Tonic.—*Uses*: Vomit. of pregn., seasickn., epilepsy, migr., chronic diar., tabes, cardialgia & hyst.—*Techn.*, for isolating various elements of cerium group (Ce, La, Nd, Pr).—*Dose* 1-5 grains (0.06-0.3 Gm.) several t. p. d.—*Max. D.* 5 grains (0.3 Gm.) single; 15 grains (1 Gm.) p. d.

**Cerium Oxide Merck.**—Pure (100)  
(Cerium Dioxide; Cerie Oxide).— $\text{CeO}_2$ .—Pale yellow, heavy powd.; free fr. o. earths.—*Insol.* dil. acids; decomp. by heating w. conc.  $\text{H}_2\text{SO}_4$ .

**do. Merck.**—Commercial (8)  
Rust-colored powd.; cont. considerable traces  $\text{La}_2\text{O}_3$ ,  $\text{Nd}_2\text{O}_3$ ,  $\text{Pr}_2\text{O}_3$ , or  $\text{PrO}_2$ .—*Sol.*, hot nitric or sulphuric acid; insol. W.—*Uses*: *Techn.*, as cerium oxalate; in chem. analysis for detection of strychnine (Sonnenschein's test).

**Cerium Platinocyanide.**—see **Platinum & Cerium Cyanide**

**Cerium Salicylate Merck** (12)  
(Cerous Salicylate).— $\text{Ce}_2(\text{C}_7\text{H}_5\text{O}_3)_6$ .—Wh. to reddish-wh. powd.—*Insol.* W.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Cerium Sulphate Merck.**—Ceric (10)  
 $\text{Ce}(\text{SO}_4)_2 \cdot 4\text{H}_2\text{O}$ .—Reddish-yellow cryst.—*Sol.*, sl. W. & dil. sulphuric acid; w. much W. decomposes w. separation of basic salt.—*Uses*: Photo. as reducer; also for quantitative determ. nitrous acid.

**do. Merck.**—Cerous (6)

$\text{Ce}_2(\text{SO}_4)_3 \cdot 8\text{H}_2\text{O}$ .—Sm. pink cryst.—*Sol.*, sl. W.—*Uses*: Develop. aniline black. Said to be superior to vanadium.

**Cerium Valerate Merck** (15)  
 (Cerous Valerate).— $\text{Ce}_2(\text{C}_5\text{H}_9\text{O}_2)_6$ .—Wh. to reddish-wh. powd.—*Sol.*, diffie. W.

**Cerium & Ammonium Nitrate Merck.**—Ceric (40)  
 $\text{Ce}(\text{NO}_3)_3 \cdot 2\text{NH}_4\text{NO}_3$ .—Sm., orange-red, prismat. cryst.—Free fr. o. earths.—*Sol.*, eas. W., & A.; alm. insol. conc.  $\text{HNO}_3$ .—Easily reducible to colorl. cerous salt.—*Uses*: Incandesc. lighting.

**do. Merck.**—Cerous (75)

$\text{Ce}_2(\text{NO}_3)_6 \cdot 3\text{NH}_4\text{NO}_3 + 10\text{H}_2\text{O}$ .—Large, white transp. cryst.—Free fr. o. earths.—*Sol.*, v. eas. W., A.—*Uses*: In incandescent lighting.

**Cerolinn** (30)

Fatty substce fr. yeast, & representing the specifically active constit. of yeast.—Yellowish to brownish, semi-fluid or tenacious mass (accord. to temperature; odor resembl. that of yeast.—*Uses*: Furunculosis, scurvy, acne, &c. Possesses also laxat. action.—*Dose*  $1\frac{1}{2}$ –5 grains (0.1–0.3 Gm.) 3 t. p. d. in pill (marketed in pills each cont.  $1\frac{1}{2}$  grains [0.1 Gm.]).

**Cerosin.**—see **Ceresin, White & Yellow**

**Ceruse.**—see **Lead Carbonate**

**Cetaceum.**—see **Spermaceti**

**Cetin Merck** (75)

(Cetyl-ester of Palmitic Acid).—Chief constit. of commercial purified spermaceti.— $\text{C}_{15}\text{H}_{31}\text{COO} \cdot \text{C}_{16}\text{H}_{33}$ .—Wh., cryst. substce.—*Sol.*, abs. A., E.; insol. W.—*Melt.*, abt.  $50^\circ\text{C}$ .—*Volat.*  $360^\circ\text{C}$ .

**Cetraria**

(Iceland Moss).—Thallus of *Cetraria islandica* (L.), *Acharius*. Lichenes.—*Habit.*: Europe; North America.—*Etymol.*: “Cetraria” fr. Lat. “cetra,” a small shield, referring to the shape of the frond. “Islandica” refers to its habitat, Iceland.—*Constit.*: Cetraric acid (cetrarin)  $\text{C}_{30}\text{H}_{50}\text{O}_{12}$ ; lichenostearic acid  $\text{C}_{19}\text{H}_{32}\text{O}_4$ ; fumaric acid; lichenin; thallochlor (chlorophyll); oxalic & tartaric acids.—*Uses*: Demulc.; Emulsifier.—*Dose* 30–60 grains (2–4 Gm.) usually in decoct.

**Cetrarin Merck.**—Highest Purity (1000)

(Cetraric Acid).—Bitter prin. fr. *Cetraria islandica*, Ach.— $\text{C}_{30}\text{H}_{50}\text{O}_{12}$ .—Wh., cryst., bitter. powd.—*Sol.*, in alkalies & their carbonates, & in boil. A.; sl. in W., cold A., E.—Hematinic; Stom.; Expector.; Antemet.;—*Uses*: Chlorosis (incr.

number red corpuscles in blood), incip. phth., bronchitis; digest. disturb. w. anemia, persist. vomiting, &c.—*Dose*  $1\frac{1}{2}$ –3 grains (0.1–0.2 Gm.).

**Cetrarin Merck.**—Pure (300)

Brownish powd.—*Uses*: As above.

**Cetyl Iodide Merck** (100)

Fr. cetyl alcohol, by iodine w. phosphorus.— $\text{C}_{16}\text{H}_{33}\text{I}$ .—Fine leaflets.—*Sol.* A.—*Melt.*  $22^\circ\text{C}$ .

**Cevadilla.**—see **Sabadilla**

**Cevadilline.**—see **Sabadilline**

**Cevadine.**—see **Veratrine, Pure**

**Chalk, Precipitated.**—see **Calcium Carbonate, Precipitated**

**Chalk, Prepared.**—see **Calcium Carbonate, Prepared**

**Chamædrys**

(Germander; Chamædrys; Ground Oak; Wall Germander).—Dried plant *Teucrium Chamædrys*, L. Labiata.—*Habit.*: Asia; Europe.—*Etymol.*: “Teucrium” is the Grk. name of the plant. “Chamædrys” fr. Grk. “chamai,” small, & “dry,” oak, i.e., the leaves somewhat resemble those of the oak.—*Constit.*: Volat. oil; bitter prin.; tannin.—Tonic; Diuret.; Antirheum.; Antipodagric; Antiscorbutic.

**Chamalirium.**—see **Helonias**

**Chamomile.**—see **Anthemis; Matricaria**

**Champaca Camphor.**—see **Champacal**

**Champacal Merck** (75)

(Champaca Camphor).—Camphor fr. champaca wood (fr. *Michelia Champaca*, L.).— $\text{C}_{17}\text{H}_{30}\text{O}$ .—Wh., cryst. need. or yellowish mass.—*Sol.* E., A.—*Melt.*  $86$ – $88^\circ\text{C}$ .

**Channing's Solution.**—see **Mercury & Potassium Iodide, Solution**

**Charcoal Animal Merck.**—Highest Purity (8)

(Bone, or Ivory, Black; “Char”; Bone Charcoal; Spodium).—Fr. bones.—Fine, black powd.—*Uses*: Decolorizer.—*Caution*. Keep fr. air, in well-stop. bots.

**do. Merck.**—Pure, moist & dry (1–3)

**do. Merck.**—Purified, moist (1)

**do.**—Commercial (1)

**Charcoal Merck.**—From Blood.—Purified by acid (8)

Fr. ox-blood.—Black powd.—*Uses*: Decolorizer.

**do. Merck.**—Commercial (6)

**Charcoal Merck.**—From Blood.—Reagent (10)

Blood charcoal purif. by acid.—Dry, light, black powd.—*Tests*: (Impur. *Sol.* in  $\text{H}_2\text{O}$ ) boil 1 Gm. w. 20 Cc.  $\text{H}_2\text{O}$ ; filter; evap. filtrate to dryness—not more than 0.003 Gm. res.—(Impur. *Sol.* in

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Nyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



A.) boil 1 Gm. w. 20 Ce. A; filter; evap. filtrate—no res.—( $H_2SO_4$ ; Cl;  $HNO_3$ ) boil 1 Gm. w. 50 Ce.  $H_2O$  a few min.; filter—filtrate colorl. & neutral. a: add to 10 Ce. filtrate solut.  $BaCl_2$ —no immed. turb.; b: add to 10 Ce. filtrate solut.  $AgNO_3$ —at most sl. opalesc.; c: add to 10 Ce. filtrate 1 drop 1 1000 indigo solut. & 5 Ce. conc.  $H_2SO_4$ —blue color should not dissap.—(Cu; Fe; Ca) boil 1 Gm. w. 40 Ce.  $H_2O$ +10 Ce.  $HCl$  (sp. gr. 1.124) for abt. 5 min.; filter; add to 10 Ce. filtrate 25 Ce.  $NH_4OH$  (sp. gr. 0.96)—no blue color or flocc. ppt.; add further few drops solut. ( $NH_4HS$  &  $(NH_4)_2C_2O_4$ )—no immed. turb.—*Incombust. Impur.* ignite 1 Gm.—not more than 0.10 Gm. res.—( $H_2S$ ) heat 1 Gm.+40 Ce.  $H_2O$ +10 Ce.  $HCl$  (sp. gr. 1.124) & test. escap. vapors w. moist. lead-acetate paper—latter not colored brown.—(*Decolor. Power*) diss. 5 Gm. caramel in 50 Ce.  $H_2O$ , add 100 Ce. 85- $\frac{C}{F}$  A., dil. to 1000 Ce., let stand sev. days, & filter. Dil. 5 Ce. of the solut. w. 50 Ce.  $H_2O$ , add 1 Gm. animal charcoal, boil 10 min. under reflux condenser, & filter—filtrate perfectly colorl.—*Uses*: Decolorizer.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.**—From Meat.—Pure, lumps or powd. (10

(Flesh Charcoal).—Black powd.—*Uses*: Decolorizer.

**do. Merck.**—From Plant Sap (2

Obtained by evaporating & carbonizing the liq. resulting on treating wood w. alkaline fluids under pressure.—Black powd.—*Uses*: Strong decolorizer.—8-25 grains (0.5-1.6 Gm.) suffice to decolorize abt. 1 quart (abt. 1000 Ce.) liq.

**do. Merck.**—From Sponge (2

(Burnt Sponge).—Cont. sl. quant. iodine.—Black powd.—Alternative.—*Uses*: In homoeopathy inst. of iodides in struma, serof., &c.—*Dose* 8-30 grains (0.5-2 Gm.) several t. p. d.

**do.**—From Wood.—U. S. P. (1

(Vegetable Charcoal).—Fr. soft wood.—Fine, black powd.; odorl.; tastl.—*Uses*: Dyspep., flatul., &c.—*Techn.*, remove unpleas. effluv. fr. decomp. matter; filtering medium; tooth-powd.—*Dose* 20-60 grains (1.3-4 Gm.).

*Chaulmoogra.*—see *Gynocardia*

*Checkerberry.*—see *Gaultheria*

*Chekan.* } —see *Eugenia Chequen*  
*Chcken.* }

*Chelcne.*—see *Ethyl Chloride*

**Chelerythrine Merck (750**

Alkaloid fr. *Chelidonium majus*, & *Sanguinaria canadensis*.— $C_{21}H_{17}NO_5$ .—Colorl. cryst.—*Sol.*, sl. A., E.; eas. C., amyl alc., B., petrol. ether, oils, &c.—Cardiac poison.

**Chelidonine Merck (1200**

Alkaloid fr. *Chelidonium majus*, L.— $C_{20}H_{19}NO_5$ + $H_2O$ .—Wh. cryst.—*Sol.*, A., C.; v. sl. E.; insol. W.—*Melt.* 135° C.—Toxic like morphine, but without increase of reflex action.—*Uses*: As analgesic in gastric & intestinal pains; used only in form of its salts.

**Chelidonine Hydrochloride Merck (1200**

$C_{20}H_{19}NO_5.HCl$ .—Wh. cryst.—*Sol.*, v. sl. W. or A.

**Chelidonine Phosphate Merck (1200**

Wh., cryst. powd.—*Sol.*, W.—*Analg.*—*Uses*: Gastr. & intes(tinal) pains, particularly in children.—*Dose*: Adults, 1½-3 grains (0.1-0.2 Gm.).

**Chelidonine Sulphate Merck (1200**

$(C_{20}H_{19}NO_5)_2.H_2SO_4$ .—Wh., cryst. powd.—*Sol.*, W.—*Uses*: Narc. like morphine, but not as toxic.

**Chelidonine Tannate Merck (1200**

Yellow powd.—*Sol.*, hot A.; alm. insol. W.—53.3°C. pure alkaloid.—*Analgesic.*—*Uses*: Gastric & intestinal pains.—*Dose* 3 grains (0.2 Gm.).

**Chelidonium**

(Celandine; Chelandine; Tetterwort).—Entire plant, *Chelidonium majus*, L. Papaveraceae.—*Habit.*: Europe; natur. in U. S.—*Etymol.*: Grk. "chelidon," swallow, as the plant blooms during the entire period of swallows' sojourn.—*Constit.*: Chelidonine,  $C_{20}H_{19}NO_5$ + $H_2O$ ; chelerythrine (pyrrhopine),  $C_{21}H_{17}NO_4$ ; chelidoxanthin; chelidonic acid,  $C_{21}H_{14}O_6$ ; protopine,  $C_{20}H_{17}NO_5$ ;  $\alpha$ -homochelidonine,  $C_{21}H_{21}NO_5$ ;  $\beta$ -homochelidonine,  $C_{21}H_{21}NO_5$ ; chelidysin(?); chelidonic acid(?); resin.—*Diuret.*; *Purg.*; *Stim.*; *Alter.*; *Diaphr.*; *Vulnerary*; *Drastic Hydragogue.*—*Uses*: Hepatic dis., lepra & cancer. The milky juice of the fresh plant is used as a caustic for removing warts.—*Doses*: 15-60 grains (1-4 Gm.).—*Fld. extr.*, 15-60  $\mathfrak{m}$  (1-4 Ce.); also extern. with 10% aristol & resorcinol w. lanum.—*Alcoh. extr.*, 5-20 grains (0.3-1.3 Gm.) in scrofula, skin eruption, amenorrh., &c.—*Aqu. extr.*, 20-75 grains (1.3-5 Gm.); subcut., 8  $\mathfrak{m}$  (0.5 Ce.) of a mixt. eq. parts extr. & W., repeated every 2-5 days.—*Tinct.* (Rademacher's), 5-20  $\mathfrak{m}$  (0.3-1.3 Ce.).

**Chelidonium Juice**

Fr. *Chelidonium majus*, L.—*Purg.*; *Diaph.*; *Expector.*—*Uses*: *Intern.*, serof.; dis. of kidney, skin, eye, &c.—*Extern.*, corns, warts, ecz., & itching erupt.—*Dose* 10-20  $\mathfrak{m}$  (0.6-1.3 Ce.).

**Chelone**

(Balmony; Turtle Head; Snake Head; Shell-flower).—Herb of *Chelone glabra*, L. Scrophulariaceae.—*Habit.*: Canada & eastern U. S.—*Etymol.*: Fr. Grk. "chelone," turtle, referring to the fancied resemblance of the flowers to the head of a tortoise. "Glabra" fr. Lat. "glaber," smooth, hairless, referring to the smooth leaves.—*Constit.*: Glucoside(?); resinoid.—*Cathart.*;

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



Anthelm.; Tonic.—*Uses*: Chron. constip., liver dis., worms.—*Extern.*, in skin dis.—*Dose*: Fld. extr., 30–60 M (2–4 Cc.).

**Chelonin (Eclectic)** (30)

Fr. *Chelone glabra*, L. (Snake head).—Brown, bitter powd.—*Tonic*; *Aper.*—*Dose* 1–2 grains (0.06–0.12 Gm.).

**Chenopodium**

(American Wormseed; Mexican Tea; Spanish Tea; Jerusalem Tea; Ambrosia; Herba Botrys mexicanæ).—Fruit of *Chenopodium ambrosioides*, L. *Chenopodiaceæ*.—*Habit.*: Central America; Canada; U. S.—*Etymol.*: Fr. Grk. "chen," goose, & "pous," foot ("podion," a little foot), referring to the resemblance of the leaves to a goose's foot. "Ambrosioides" fr. "ambrosia," fr. "a," not, & "brotos," mortal, & "oides," like, *i.e.*, immortal, or causing immortality when taken. "Botrys" Grk. for grape, *i.e.*, the buds resemble grapes in appearance.—*Constit.*: Volat. oil (in both seed & herb); resin.—*Anthelm.*; *Vermif.*; *Stomachic.*; *Nervine*; *Emmen.*—*Uses*: Worms, chorea, asthma, & o. catarrhal affect.—*Doses*: 15–60 grains (1–4 Gm.).—Fld. extr., 15–30 M (1–2 Cc.).

*Cherry-laurel*.—see **Laurocerasus**

*Cherril*.—see **Anthriscus**

*Chestnut*.—see **Castanea**

*Chian Turpentine*.—see **Turpentine, Chian**

*Chicory*.—see **Cichorium**

*Chili Niter*.—see **Sodium Nitrate**

**Chimaphila**.—U. S. P.

(Pipsissewa; Prince's Pine; Bitter Wintergreen; Rheumatism Weed; Ground Holly; Pyrola; Pine Tulip).—Dried lvs. of *Chimaphila umbellata* (L.), Nuttall, *Ericaceæ*.—*Habit.*: Europe; Asia; North America.—*Etymol.*: Grk. "cheima," winter, & "philos," loving, *i.e.*, the plant remains green during winter. Lat. "umbellatus," umbellated, *i.e.*, flowers form corymbose umbels. "Pipsissewa" is the American Indian name.—*Constit.*: Chimaphilin,  $C_{21}H_{21}O_4$ ; arbutin; ericolin; urson; tannin; resin; sugar; gum.—*Tonic*; *Astring.*; *Diuret.*; *Nephritic.*; *Rubefac.*—*Uses*: Scrof. skin erupt., & obstin. ulcers; surrogate for uva ursi.—*Doses*: 15–60 grains (1–4 Gm.).—Fld. extr., 15–60 M (1–4 Cc.).

**Chimaphilin (Eclectic)** (20)

Extr. fr. *Chimaphila umbellata*, Nutt. (Pipsissewa).—Dark brown, bitter powd.—*Sol.* A.—*Diur.*; *Tonic*; *Astring.*—*Uses*: Scrof., rheum., & Bright's dis.—*Dose* 2–3 grains (0.12–0.2 Gm.).

*China Blue*.—see **Ethylene Blue; Pure Blue**

*China Clay*.—see **Kaolin**

*China Root*.—see **Smilax China**

*Chinaldine*.—see **Quinaldine**

*Chinalgen*.—see **Analgen**

**Chinaphenin** (25)

(Phenetidin Quininecarbonic-acid Ester).—( $C_{20}H_{23}N_2O_5$ ).  $CO.(NH.C_6H_4.OC_2H_5)$ .—White, tastel. powd.—*Sol.*, eas. A., E., B., C., & acids; diffie. W.—*Febrif.*; *Antipyr.*—*Uses*: Whoop-cough, malaria, fevers, &c.—*Doses*: 5–15 grains (0.3–1 Gm.). In whoop-cough: Nurslings,  $2\frac{1}{2}$ –3 grains (0.15–0.2 Gm.); older children, 3–5 grains (0.2–0.3 Gm.).

*Chinaphthol*.—see **Quinaphthol**

*Chinaseptol*.—see **Diaphthol**

*Chinese Galls*.—see **Nutgall, Chinese**

*Chinese Ginger*.—see **Galanga**

*Chinese Sumach*.—see **Ailanthus**

*Chinetum*.—see **Quinetum**

*Chinidine*.—see **Quinidine**

*Chinium*.—see **Quinium**

*Chinoidine*.—see **Quinoidine**

*Chinoiodine*.—see **Quinoiodine**

*Chinoline*.—see **Quinoline**

*Chinoline Blue*.—see **Cyanine**

*Chinone*.—see **Quinone**

*Chinopyrine*.—see **Quinopyrine**

*Chinosol*.—see **Quinosol**

*Chinotine*.—see **Quinidine**

*Chiococca Racemosa*.—see **Cahinca**

**Chionanthin (Eclectic)** (25)

Dried extr. fr. bark *Chionanthus virginica*, L.—Brown, bitter powd.—*Sol.* A.—*Aper.*; *Diur.*—*Dose* 1–3 grains (0.06–0.2 Gm.).

**Chionanthus**

(Fringe Tree; Snowdrop-tree).—Bark of *Chionanthus virginica*, L. *Oleaceæ*.—*Habit.*: U. S. (Delaware to Florida & Texas).—*Etymol.*: Grk. "chion," snow, & "anthos," flower, referring to the snow-white petals of the flowers. "Virginia" refers to its habitat.—*Constit.*: Chionanthin (glucoside); saponin(?).—*Aper.*; *Diuret.*—*Uses*: Dropsy & mild constip.—*Doses*: Extr., 3–10 grains (0.2–0.6 Gm.).—Fld. extr., 30–60 M (2–4 Cc.).

**Chirata**.—U. S. P.

(Chiretta; Chirayta; Bitter Stick; East Indian Balmoney).—Dried plant, *Swertia* (*Ophelia*) *Chirayita* (Roxb.), Hamilton, *Gentianaceæ*.—*Habit.*: East Indies (Himalaya).—*Etymol.*: "Chiretta" is the East Indian name, and is derived fr. "Kīrātas," the name of a race of mountaineers among whom the plant grows, and by whom it is used. "Swertia" fr. "Emanuel Sweetser," a Dutch botanist (b. 1552).—*Constit.*: Chiratin,  $C_{25}H_{48}O_{15}$ ; ophelic acid,  $C_{13}H_{20}O_{10}$ .—Bitter Tonic;

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



Febriif., Stomachic., lax., Anthelm.—*Uses*: Dyspep., debil., worms, fever.—*Dose*: 15-60 grains (1-4 Gm.)—*Flid. extr.*, 15-60 fl. (1-4 Ce.).—*Aqu. extr.*, 8-15 grains (0.5-1 Gm.).—*Tinct.*, 30-120 fl. (2-8 Ce.).

**Chitin Merck.**—From Beetles (2500

Horny subst., from integuments of beetles.— $C_{10}H_{12}N_2O_2$ .—Wh., amorph., semi-transp. mass.—*Sol.*, str.  $H_2SO_4$ , or  $HCl$ ; insol. ordinary solv.

**do. Merck.**—From Crabs (1000

Horny subst., fr. carapaces of crabs.

**Chloracetone Merck** (40

(Monochlorated Acetone; Monochloroacetone).—By chlorinating acetone.— $C_2H_5ClO$ , or,  $CH_3CO.CH_2Cl$ .—Colorl. liquid; pungent odor.—*Sp. Gr.* 1.162 at 16° C.—*Misc. A., E., C.*; insol. W.—*Boil.* 119° C.

**Chloracetyl Chloride Merck** (30

(Chloroacetyl Chloride).—Fr. acetyl chloride, by chlorine in sunlight.— $C_2H_3Cl_2O$ , or,  $CH_3Cl.CO.Cl$ .—Colorl., transp. liq.—*Sp. Gr.* 1.495 at 0° C.—*Boil.* 105-106° C.

*Chloral-Acacia.*—see **Hoyer's Chloral-Acacia**

**Chloral Alcoholate Merck** (6

(Chloral Ethyl-alcoholate).—Fr. chloral, by ethyl alc.— $C_2H_5Cl_2O_2$ , or,  $CCl_3CH(OH)(OC_2H_5)$ .—Colorl. cryst.—*Sol.* A.; sl. in W.—*Melt.* 56° C.—*Boil.* 115° C.

**Chloral Anhydrous**

(Trichloroacetic Aldehyde; Chloral).—Fr. aqu. aldehyde, by chlorine.— $C_2HCl_3O$ , or,  $CCl_3CHO$ .—Colorl., mobile liq.; pungent odor; unites w. W. to form hydrated chloral.—*Boil.* 94.5° C.—*Sp. Gr.* 1.502 at 18° C.—*Sol.* W., A.

*Chloral-antipyrine.*—see **Hypnal**

**Chloral Camphorated Merck.**—*N. F.* (15

By tritur. eq. pts. camphor & hydrated chloral in a warm mortar.—*Transp.*, colorl., syrupy liq.—*Sol.*, all prop., A., E., oils, fats; insol. W.—*Analg.*, *Uses*: Toothache, neural., &c.

*Chloral, Carbolated.*—see **Chloral, Phenolated**

*Chloral Ethylalcoholate.*—see **Chloral Alcoholate**

*Chloral Hydrated-antipyrine.*—see **Hypnal**

**Chloral Hydrated Merck.**—*U. S. P.*—Loose cryst., or crusts (2

(Erroneously called "Chloral"; Trichloraldehyde Hydrate).—Fr. chloral alcoholate.— $CCl_3CH(OH_2)$ .—*Transp.*, colorl., rhomboidal cryst., or flat, wh., cryst. masses; pecul. pung. odor & taste.—*Sol.* W., A., E., C., G., B., benzoin, fixed & volat. oils.—*Melt.* 58° C.—*Boil.* 97° C.—*Hypn.*; *Anti-spas.*; *Analg.*; *Antisep.*—*Uses*: *Intern.*, prod. sleep; *antid.* to cocaine; puerperal eclampsia, mania, delir. trem., convuls., chorea, tetanus, phth. night-sw., hysteria, epilepsy, local spasm, asthma, strangul. hernia, incont. urine, spasm.

croup, & spasm of glottis.—*Extern.*, foul sores, irrit. ulc., destroy parasites.—*Dose* 10-30 grains (0.6-2 Gm.) in syrup or elixir.—*Appl.*, in 1-5% solut.—*Mar. D.* 7.5 grains (5 Gm.). *Contraindic.* infl. stomach; large doses must not be given in heart disease; children & the aged, with caution.—*Antid.*, emetics, stomach siphon, cocaine hydrochloride, camphor (3 grains [0.2 Gm.]); sulphuric ether (20 drops); strych. ( $1/120$ - $1/10$  grain [0.0005-0.001 Gm.]), or atropine, hypoderm.; stimulants, oxygen, mucilage of acacia.—*Incomp.*, alcohol, potassium iodide or cyanide or permanganate; borax; alkali hydroxides & carbonates; euphorin; lead acetate; monobromated camphor; diuretic; exalgine; phenacetin; quinine sulphate; salol; sodium phosphate; urea; urethane. Liquefies when triturated w. an equal quantity camphor, carbolic acid, menthol, or thymol.—*Caution*. Keep glass stoppered!

*Note.*—The physiological action of this very pure article is perfect, & is promptly developed.

**Chloral Hydrocyanate Merck** (20

(Trichloroalactonitrile).—Fr. chloral, by anhydrous hydrocyanic acid, at 120° C.— $C_3Cl_3H_2NO$ , or,  $CCl_3CH(OH)CN$ .—Colorl. cryst.; odor of HCN & chloral.—15-33% hydrocyanic acid.—*Sol.* W., A., E.—*Melt.* 58-61° C.—*Boil.* 218° C.—*Uses*: In solut. inst. of cherry-laurel, or bitter-almond, W.; super. to hydrocyanic acid, as exact dose possible, because more permanent; 1 part dissolved in 160 distil. water makes bitter-almond water equiv. to that of the Ph.G.—6.46 chloral hydrocyan.=1 anhydr. HCN.

**Chloral Mentholated**

By melting on water-bath eq. pts. hydrated chloral & menthol.—*Analg.*; *Counter-irrit.*—*Uses*: Neural., headache, &c.

**Chloral (Meta-)** (15

(Parachloral; Metachloral).—Fr. chloral, by contact w. sulphuric acid.— $(CCl_3COH)_n$ .—Wh., amorph. powd.—*Insol.* W.

**Chloral Phenolated**

(Carbolated Chloral; Chloralphenol).—By tritur., w. heat, 1 pt. hydr. chloral & 3 pts. phenol.—Oily liq.—*Analg.*—*Uses*: Toothache & neural.

*Chloralamide.*—see **Chloralformamide; Chloral-ammonia**

**Chloralammonia Merck** (25

(Trichloramidoethylic Alcohol; Chloralamide).—Fr. solut. chloral in C., by amm.— $CCl_3COH.NH_3$ , or,  $CCl_3CH(OH).NH_2$ .—Wh., cryst. powd.; chloral odor & taste.—*Sol.* A., E.; alm. insol. cold W.; decomp. by hot W.—*Melt.* 71° C.—*Hypn.*; *Analg.*—*Uses*: Nerv. insom., neural., &c.—*Dose* 15-30 grains (1-2 Gm.).

**Chloralbacide** (20

Sodium compound of chloralbacide, a chlorine-albumin compound containing the halogen in firm intramolecular combination.—Yellowish-

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



wh. powd.—*Sol.* W.—*Uses:* Atonic digestive disturbances due to or resulting in anorexia, insufficiency of hydrochloric acid, abnormal formation of organic acids, impaired intestinal absorption, & costiveness.—*Dose* 15–30 grains (1–2 Gm.) before the two principal meals.

### Chloralbenzaldoxime

$C_9H_9NO_2Cl_3$ , or  $C_9H_9CH:N.OCH(OH)CCl_3$ .—Wh., cryst. powd.—*Sol.* A., E.—*Melt.* 62° C.—Hypn.; Antisept.

### Chloralcaffeine Merck

(15)

$C_8H_{10}N_4O_2.C_2Cl_3H_2O$ .—Colorl., lustrous leaflets.—*Sol.* W.—Hypn.; Sed.; Analg.—*Uses:* Nervn., insom., neural., & headache.—*Inj.* 3–6 grains (0.2–0.36 Gm.) 2 or 3 t. p. d.

### Chloralcamphoroxime

$C_{12}H_{18}NO_2Cl_3$ , or  $C_{10}H_{16}:N.OCH(OH)CCl_3$ .—Wh., cryst. powd.—*Sol.* A., E.—*Melt.* 98° C.—Hypn.; Stim.; Antisept.

### Chloralformamide

(20)

(So-called "Chloralamide"; Formamidated Chloral).—Fr. chloral, by formamide.— $C_3H_4O_2.Cl_3N$ , or  $CCl_3CH(OH).CONH_2$ .—Lustr., colorl., odorl., somewhat bitter cryst.—*Sol.*, slowly in 20 W., 2 A.; (in 18.7 W., & 1.3 A. at 25° C.; eas. E., G., acetone, & acetic ether.—U. S. P.); decomp. by warm solvents.—*Melt.* 114–115° C.; decomp. at higher temp.—Hypn.; Analg.—*Uses:* Claimed to prod. sleep without injur. act.; insom. of alcoholism, cardiac dis., pulmon. dis., neural., & hyst.—*Dose* 15–45 grains (1–3 Gm.).—*Max.* D. 60 grains (4 Gm.), single; 120 grains (8 Gm.), p. day.—*Incomp.*, with alkalies.—*Caut.* Keep below 60° C.

### Chloralimide Merck (Not -amide)

(100)

(Trichlorethylideneimide).—Fr. chloralammonia, by heat; or fr. hydrated chloral by amm. acetate.— $C_2Cl_3H_2N$ , or  $CCl_3CH:NH$ .—Colorl. cryst.; odorl.; tastel.—*Sol.*, readily A., E., C., oils; insol. W.—*Melt.* 155° C.—Hypn.; Analg.—*Uses:* Insom., headache, & fever.—*Dose* 15–45 grains (1–3 Gm.) 2 or 3 t. p. d.—*Max.* D. 45 grains (3 Gm.), single; 90 grains (6 Gm.) p. d.

### Chloralose Merck

(55)

(Alpha-chloralose; Anhydroglucochloral).—Fr. anhydrous chloral, by heat. w. glucose.— $C_8H_{11}Cl_3O_6$ .—Colorl. cryst.; bitter, disagr. taste.—*Sol.* A.; sl. in W. (1:200).—*Melt.* 185° C.—Hypn.—*Uses:* Insom. Free fr. disagr. cardiac after-effects & cumulative tendency of chloral. Acts princip. by reduc. excitability of gray matter of brain.—*Dose* 3–12 grains (0.2–0.8 Gm.) in wafers.—*Max.* D. 12 grains (0.8 Gm.).

Chloralosc, Para.—see Parachloralose

Chloralphenol.—see Chloral, Phenolated

Chloralurethane.—see Urethane, Chloral-

### Chloranil Merck

(50)

(Tetrachloroquinone).—Fr. aniline or phenol, by potass. chlorate w. hydrochl. acid.— $C_6Cl_4O_2$ .—Yellow leaflets.—*Sol.* B., E.; sl. in A.—*Uses:* Techn., as oxidizer in manuf. coal-tar dyes.

### Chloretona

(20)

(Acetone-chloroform; Tertiary Trichlorbutylalcohol. Solut. known as Anesin or Aneson).— $CCl_3(CH_3)_2.C.OH + \frac{1}{2}H_2O$ .—Wh. cryst.; camphor odor & taste.—*Sol.*, freely in A., E., benzin, glae. acetic acid; 100 W.; 7 G.; oils.—*Melt.* 80–81° C.—Local Anesth.; Hypnot.; Antisept.—*Uses:* Painful wounds, burns, &c.; insomnia in the aged; seasickness; gastric carcinoma; also as inhalant in rhinitis, bronchitis, "sorethroat," & catarrh.—*Doses:* Insomnia, 5–20 grains (0.3–1.3 Gm.); to reduce nausea in chlorof. or ether anesthesia, 10–15 grains (0.6–1 Gm.)  $\frac{1}{2}$  hr. before anesthetization; gastric carcin., up to 30 grains (2 Gm.); seasickness, 3–5 grains (0.2–0.3 Gm.) every  $\frac{1}{2}$  hr.—*Extern.*, in saturated aqueous solut. or 10% oint. or 1–5% dusting-powd.

Chlorhydrin, Mono.—see Monochlorhydrin

"Chloride of Lime."—see Lime Chlorinated

Chloridene.—see Ethylidene Chloride

Chlorin.—see Dinitrosoresorcinol

Chlorine Bromide.—see Bromine Chloride

Chlorine Water, U. S. P.—see Solution Chlorine, Compound

### Chlorine Water Merck.—Reagent

(1)

Clear, pale, greenish-yellow liq.; strong odor Cl; abt. 0.4% Cl.—*Tests:* (Res.) evap. 20 Gm. in glass dish on W.-bath—none wghble.—(HCl) shake 20 Gm.+5 Gm. Hg for 5 min.; filter; add to filtrate solut. phenolphthalein, & norm. KOH by drops till red color appears—not more than 0.1 Cc. should be required.—*Uses:* Detect. I, Br, quinine, xanthine, & uric acid.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

Chloriodobenzoic-acid Glycerinic Ester.—see Benzoiiodhydrin

Chloriodopyridine.—see Pyridine Chloriodide

Chlormethylmenthyl Ester.—see Forman

Chloroacetyl Chloride.—see Chloracetyl Chloride

Chlorobenzal.—see Benzyl Dichloride

Chlorobenzol, Mono.—see Benzene, Monochloro-

Chlorobromopropane.—see Trimethylene Chlorobromide

Chlorochromic Anhydride.—see Chromium Oxichloride

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Chloroform Merck.—For Anesthesia. —Repurified & Redistilled** (1)

(Trichloromethane) improperly "Formyl Trichloride."—Fr. alcohol or acetone, by bleaching powder— $\text{CHCl}_3$ —H<sub>2</sub>O, 11% refract., sweet-tast., heavy liq.; charact. odor.—Sp. Gr. 1.490 at 15° C.—*Misc.*, all prop., A., E., B., petroleum ether, & oils, sl. in W.—*Boil.*, 60–62° C.—*Anesth.*: Antisep.; Analg.—*Uses*: *Intern.*, colic, gastr., asthma, spasm, cough, atonic quincy, hyst., scar fever, neural., cancer, lues, tic douloureux, &c. *Inhal.* in pneum. & for anesth. surg. operat.—*Extern.*, 20–50% linim. for rheum., neural., colic, &c. *Hypoderm.*, hydrocele.—*Dose*, 10–20 ml (0.6–1.3 Ce.) in solution.—*Max. D.*, 30 ml (2 Ce.).—*Intid.*, emetics, stomach siphon, cold douche, fresh air, strychnine hypoderm. ( $\frac{1}{30}$ – $\frac{1}{60}$  grain [0.0005–0.001 gm.]), rubefac., artifl. respir., &c.—*Caut.*, Keep in dark amber.

N.B.—Occasionally practitioners fail to recollect, until after the disagreeable occurrence, that chloroform rapidly decomposes when its vapor comes into contact with an exposed gas-light, evolving peculiar chlorine vapors which are extremely irritating to all present and may be even dangerous to the patient. Chloroform, therefore, should never be administered by gas-light unless the latter be well protected by a closed glass case, and abundant provision made for the rapid escape from the room of all decomposition products.

*Note.*—Purified by specially devised, careful processes, & freed from all poisonous foreign substances, Chloroform Merck for Anesthesia is particularly adapted for use as an anesthetic, as well as in all work of an exacting nature.

**do. Merck** (1)

*Uses*: *Techn.* in dentistry, electrotechn., rubber industry, photo., & particularly as a solvent.

**do. Merck.—From Chloral** (3)

Fr. chloral by potass. hydroxide.

**Chloroform Merck.—Reagent** (2)

$\text{CHCl}_3$ .—Clear, colorl., v. volat. liq.—*Misc.*, all prop., A., E., fixed & volat. oils; sl. sol. W. (1:200).—Sp. Gr. 1.485–1.489.—*Boil.*, 60–62° C.—*Tests*: (*Free Acid*) shake 20 Ce. w. 10 Ce.  $\text{H}_2\text{O}$   $\frac{1}{2}$  min.; when chlorof. separated, draw off aqu. layer w. pipette—it should not redden blue litmus paper, or become opalesc. when overlaid on 2.5 Ce.  $\text{H}_2\text{O}$  + 2.5 Ce. solut.  $\text{AgNO}_3$ .—(*Free Cl*) shake 5 Ce. w. 5 Ce. solut. zinc iodide-starch—solut. should not acquire blue color, nor should chlorof. bec. colored.—(*Organ. Impur.*) frequent. shake 20 Ce. w. 15 Ce. conc.  $\text{H}_2\text{SO}_4$ —the acid should not acquire a color within 1 hr.—*Uses*: Solvent; testing primary amines, &c.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Chloroform Anschutz** (5)

(Salcylchloroform).—Fr. the crystalline comp. of chloroform & salcyl, by distillation.—Very pure prod., specially recom. for anesthesia.

**Chloroform Pictet** (4)

Purified by freezing.—*Uses & Doses*: As of chloroform, for anesthesia.

**Chlorogenine Merck** (1250)

(Alstonine).—Alkaloid fr. bark *Alstonia constricta*, F. Mueller, (Australian Fever Bark).— $\text{C}_{21}\text{H}_{23}\text{N}_3\text{O}_4 + 3\frac{1}{2}\text{H}_2\text{O}$ .—Brown powd.—*Sol.*, A., E., C., B., dil. acids; sl. in W.—*Melt.*, 195° C.—*Antipyr.*; *Antiper.*; *Antisep.*; *Stim.*—*Uses*: *Intermit. fever*, typhoid fever, &c.; seems to possess proper., analogous to quinine & strychnine.

**Chlorometaxyline (or -ol).—see Xylene (Meta-) Chloro-**

**Chloromethane.—see Methyl Chloride**

**Chloronitrobenzene (Meta-) Merck** (40)

(Metachloronitrobenzene [or -ol]).—Fr. nitrobenzene, by chlorine w. iodine.— $\text{C}_6\text{H}_4\text{Cl}(\text{NO}_2)[1:3]$ .—Yellowish cryst.—*Sol.*, E., C., B., hot A.—*Melt.*, 44° C.—*Boil.*, 230° C.

**Chloronitrobenzene (Ortho-) Merck** (30)

(Orthochloronitrobenzene [or -ol]).—Fr. chlorobenzene, by nitration.— $\text{C}_6\text{H}_4\text{Cl}(\text{NO}_2)[1:2]$ .—Yellow liq.—*Sol.*, A., B.—Sp. Gr. 1.454 at 15° C.—*Boil.*, 243° C.

**Chloronitrobenzene (Para-) Merck** (30)

(Parachloronitrobenzene [or -ol]).—Fr. chlorobenzene, by nitric acid.— $\text{C}_6\text{H}_4\text{Cl}(\text{NO}_2)[1:4]$ .—Yellowish cryst.—*Sol.*, A., E.—*Melt.*, 83° C.—*Boil.*, 242° C.

**Chlorophyll Merck.—Pure** (60)

Color. matter fr. plant leaves; pure but w. trace alk. carbonate to prev. decomp. Free fr. copper.—Green masses; consist. of extr.; solut. exhibits beautiful blood-red fluorese.—*Sol.*, A., E., carbon disulph., & ethereal oils w. trace of acetic acid; sol. in alkaline W.—*Uses*: Color. pure alcoh. liquids, fats, oils, soap, &c.

**do. Merck.—For alcoholic liquids** (7)

Intens. dark green liq.—*Sol.*, A., E.—*Uses*: Color. alcoh. liq. cont. over 85% alcohol. Color stable in light, no fluorese.

**do. Merck.—For aqueous liquids** (7)

Intens. dark green, non-fluorese. liq.; odorl.; alm. perman't. in light.—*Misc.*, all prop. W.—*Uses*: Color. liqueurs, confectionery, preserves, &c., cont. less than 85% alcohol. Non-poison.; perm't.

**do. Merck.—Technically pure, for fats, oils, soaps, etc.** (7)

*Sol.*, fats, oils, E., C., &c., w. perm't, beautiful stable green without fluorese.; not acted on by light.—*Uses*: Color. oils, fats, soaps, oint., &c.; not suitable for aqueous or alcoh. solut's.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Chloropicrine Merck** (40)  
(Trichloronitromethane; Nitrochloroform).—Fr. picric acid by distil. w. bleach. powd.— $\text{CCl}_3\text{NO}_2$ .—Colorl. liq.; intense odor causes peculiar form of frontal headache.—Sp. Gr. 1.66 at 15° C.—Sol. A., E.—Boil. 112° C.

**Chloropropyleneglycol**.—see **Monochlorhydrin**

**Chloropropylene Oxide**.—see **Epichlorhydrin**

### Chlorostigma

(Tasi; Tasillo; Tasi Crespo).—The whole plant *Chlorostigma Stueckertianum*. Asclepiadaceae.—*Habit.*: Argentine Republic.—*Etymol.*: Fr. Grk. "chloros," green, & "stigma," spot. Named for Teodoro Stuekert, an Argentine apothecary & botanist, in 1897.—*Constit.*: Chlorostigmine.—*Uses*: Galactagogue; also as rennet (for curdl. milk) in 5–10% decoct.

**Chlorosulphonic Anhydride**.—see **Pyrosulphuryl Chloride**

**Chlorotoluene, Omega**.—see **Benzyl Chloride**

**Cholepyrrhin**.—see **Bilirubin**

### Cholesterin Merck

(225)  
Fr. gall, brain, & vegetable fats.— $\text{C}_{26}\text{H}_{43}\text{OH} + \text{H}_2\text{O}$ .—Unct., wh., pearly scales.—Sol. E., C., B., hot A.; sl. W.—*Melt.* 145–148° C.—*Antisept.*—*Uses*: Techn. Can absorb 200% water.—Antidote to saponins.

### Choline Merck

(2500)  
(Sinkaline; Bilineurine; Amanitine; Trimethylethylenhydrate-ammoniumhydroxide; Oxyethyltrimethylammonium Hydroxide).— $\text{C}_5\text{H}_{15}\text{NO}$ , or,  $(\text{CH}_3)_3\text{N}(\text{OH})\text{CH}_2\text{CH}_2\text{OH}$ .—Viscid liq.—Sol. W., A.

### Choline Hydrochloride Merck

(2500)  
 $\text{C}_5\text{H}_{14}\text{NOCl}$ , or,  $(\text{CH}_3)_3\text{N}:\text{CH}_2\text{CH}_2(\text{OH})\text{Cl}$ .—Deliq. cryst.—Sol. W., A.

### Chondrin

Gelatin-like subst., fr. cartilage.—Yellow, glue-like, horny masses.—Sol., hot W.

### Chondrus.—U. S. P.

(Carrageen; Irish Moss; Pig-wrack; Pearl Moss; Killen; Salt Rock Moss).—Dried plant of *Chondrus crispus* (L.), Lyngbye (and *Gigartina mammosa*, Goodenough & Woodward). *Gigartinales*.—*Habit.*: Irish coast; New England; Atlantic Ocean.—*Etymol.*: Fr. Grk. "chondros," cartilage, gristle, the fronds are cartilaginous; "crispus," Lat. crumpled; "carrageen" fr. Gaelic "earraigeen," rock-moss.—Yellowish or whitish, horny, transl. segments, fr. 2–5 in. long, forked, wedge-shaped to linear; seaweed-like odor; mucilag., saline taste; when boiled w. 30 W. for 10 minutes, solut. gelatinizes when cold.—*Constit.*: Pectin (up to 80%; also termed carrageenin); proteids.—Nutr.; Demule.—*Uses*: Chron. pector. affect., dysent., diar., &c.—*Extern.*, in catapl.—*Techn.*, emulsifier for oils.—*Micros.*,

as nutr. media for amoeba.—*Domestic economy*, for jellies, &c.—*Dose* 1–2 drams (4–8 Gm.) in form of decoct. or jelly.

**Chong-Ching**.—see **Rhinacanthus**

**Chrome Alum**.—see **Chromium & Potassium Sulphate**

**Chrome Green**.—see **Chromium Oxide**

**Chrome Red**.—see **Lead Chromate, Basic**

**Chrome Yellow**.—see **Lead Chromate, Precipitated**

**Chromic-Platinum Chloride**.—see **Merkel's Chromic-Platinum Chloride**

### Chromium Merck.—Cryst.

(500)  
*Etymol.*: Fr. Grk. "chroma," color, because most of the chromium salts exhibit bright colors.—Metal.—Cr.—Shin., steel-gray, cryst., or hard, lustrous steel-gray pieces; hard as corundum & less fusible than platinum.—Sp. Gr. 6.5–6.8 at 15° C.—*Uses*: Chromium compounds find important use in manufacturing leather, glass, & porcelain.

do. Merck.—Fused (20)

**Chromium Acetate Merck.—Dried** (6)  
(Normal Chromic Acetate).— $\text{Cr}(\text{C}_2\text{H}_3\text{O}_2)_3 + \text{H}_2\text{O}$ .—Grayish-green powd.—Sol. W.

do. Merck.—Paste (15)

Normal chromous acetate, paste form.—Bluish-green, pasty mass.—Sol. W.—*Uses*: Techn., as chrome mordant & in dyeing.

### Chromium Carbonate

$x\text{Cr}_2(\text{CO}_3)_3 + x\text{Cr}_2(\text{OH})_6$  (?).—Amorph., grayish-blue mass.—Sol., mineral acids.

### Chromium Chloride Merck.—Sublimed

(18)  
(Chromic Chloride; Chromium Sesquichloride).— $\text{Cr}_2\text{Cl}_6$ .—Viol., cryst. powd., or v. lustrous leaflets.—Sol. W., cont'g traces chromous chloride; insol. plain W. & acids.—*Uses*: Techn.

do. Merck.—Solution (5)

Green liq.—Misc. W.

### Chromium Fluoride Merck.—Pure

(6)  
(Chromic Fluoride).— $\text{CrF}_3 + 4\text{H}_2\text{O}$ .—Fine, green, cryst. powd.—Sol. W.—*Uses*: Print. & dye. woollens, & dyeing & hardening marble.

### Chromium Hydroxide Merck.—Dry

(2)  
(Chromic Hydrate).— $\text{Cr}_2(\text{OH})_6 + 4\text{H}_2\text{O}$ .—Green powd.—Sol., w. diffic. in acids.—*Uses*: Pigment in painting.

### Chromium Nitrate Merck.—Solution

(4)  
(Chromic Nitrate).— $\text{Cr}(\text{NO}_3)_3 + \text{aq}$ .—Bluish-green liq.—Sol. W.

### Chromium Oxalate Merck

(4)  
(Chromic Oxalate).— $\text{Cr}(\text{C}_2\text{O}_4) + \text{H}_2\text{O}$ .—Dark-green leaflets.—Sol., hot W.

**Comparative Values** (see *Preface*, page v): 1= Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Nyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Chromium Oxide Merck.—Highest Purity** (3)  
(Chromic Oxide, Chromium Sesquioxide; Chrome Green).— $\text{Cr}_2\text{O}_3$ .—Bright green, cryst. powd.—Insol. W.

**do. Merck.—Anhydrous** (2)  
*Uses:* Pigment, particularly in painting on glass & porcelain; printing fabrics & banknotes; polishing steel; abundant, &c.

**Chromium Oxychloride Merck** (20)  
(Chlorochromic Anhydride; Chromyl Chloride).—By heat, chromic acid w. ferric chloride.— $\text{CrOCl}_2$ .—Dark-red, mobile liq.; fum. in air.—*Caution.* Keep in sealed glass tubes.

**Chromium Phosphate Merck** (5)  
(Chromic Phosphate; Arnaudon's, or Plessy's, Green).— $\text{Cr}_2(\text{PO}_4)_3$ .—Bluish-green powd.—Insol. W.—*Uses:* Valuable pigment.

**Chromium Sesquichloride.**—see **Chromium Chloride**

**Chromium Sesquioxide.**—see **Chromium Oxide**

**Chromium Sulphate Merck** (2)  
(Green Chromic Sulphate).— $\text{Cr}_2(\text{SO}_4)_3$ .—Dark-green scales; violet & red when hydrated; modifie. depend. on amt. water of cryst.—*Sol.* W.—*Uses:* Techn., in manuf. other chromium compounds, green varnishes, & as addition to green inks.

**Chromium Trioxide Merck.—Highest Purity** (5)  
(Chromic Anhydride; so-called "Chromic Acid").—Fr. potass. dichromate.— $\text{CrO}_3$ .—Reddish-brown cryst.—*Sol.* W. Decomp. org. solvents violently.—*Melt.* 192–193° C.—Cautic; Astring.—*Uses:* *Extern.*, syph. sores, hyperpl., or ulc.; condyl. & veget.; hypertr. chryza; exub. granul.; hemorrhage, persp. feet; leucor., &c.—*Appl.*: Caust., 20% solut. upw., or pure, melted on silver probe; astring. (sweat. feet), 5% solut.—*In Veter. Med.*, *extern.*, in 33% solut. in mouth- & foot-dis.—*Antid.*, emetics, then milk; white of egg; calc. saccharate, 8–15 grains (0.5–1 Gm.) in sugar water hourly; powd. iron w. syrup; magnesia in abundance, 150 grains (10 Gm.); 5 fld. oz. (150 Cc.) water, in tablesp. doses; ice; chalk.—In burns fr. chrom. triox. apply dil. solut. sodium bicarbonate, followed by lead water & 10% lead-acetate oint.—*Incomp.*, alcohol, ether, glycerin, spirit nitrous ether, arsenic trioxide, & n'ly every org. subst.; bromides, chlorides, iodides, hypophosphites, oxalates, sulphides, sulphites & tartarates.—*Caution.* Poisonous! Dangerous accidents may occur by contact w. organic substances. Keep dry.

**do. Merck.—Fused, in pencils**  
Dark red sticks.—*Sol.* W.—*Caution.* Keep dry & from organic matter. Poisonous!

**do. Merck.—Commercial** (1)  
Red, cryst. powd.—*Uses:* Electric batteries; photography; purifying oils; oxidizer in manu-

facturing & analyt. chemistry; manuf. aniline green; dyeing & tanning; etching copper; test for silver-plating; bleaching; hardening microscopical preparations.

**Chromium Trioxide Merck.—Reagent.—Free fr. Sulphuric Acid** (5)

(Chromic Anhydride).— $\text{CrO}_3$ .—Dark brownish need. or rhomb. prisms.—*Sol.*, read. W.—Almost 100% pure.—*Tests:* ( $\text{H}_2\text{SO}_4$ ) 2 Gm. + 20 Cc. W. gives clear solut.; add 20 Cc.  $\text{HCl}$  (sp. gr. 1.124) + 1 Cc. solut.  $\text{BaCl}_2$ —no immed. turbid.—( $\text{K}_2\text{SO}_4$ ;  $\text{K}_2\text{CrO}_4$ ) ignite 0.2 Gm. in porcel. crucib.; tritur. res. w. abt. 20 Cc. W.; filter; evap. filtr. to dryness on W-bath; dry res. at 100° C.—wt. of res. not more than 0.002 Gm.—*Uses:* Oxidizer; estim. C & P; hardening agent in microscopy.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Test," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Chromium & Potassium Oxalate Merck** (6)  
 $\text{K}_2\text{Cr}_2(\text{C}_2\text{O}_4)_6 \cdot 6\text{H}_2\text{O}$ .—Violet-red, cryst. mass.—*Sol.*, hot W.

**Chromium & Potassium Sulphate Merck.—Highest Purity** (1)  
(Chrome Alum).—By-prod. manuf. anthracene red, aniline violet, &c.— $\text{Cr}_2\text{K}_2(\text{SO}_4)_4 \cdot 24\text{H}_2\text{O}$ .—Dark violet-red, regular cryst.; ruby-red by transmit. light.—*Sol.* W.—*Uses:* Chiefly techn.

**do. Merck.—Technical** (1)

*Uses:* Techn., as mordant for dyeing fabrics uniformly, for tanning leather, printing calico, rendering glue & gum insoluble, manuf. other chromium salts, & water-proofing fabrics.

**Chromo-Acetic Acid.**—see **Flemming's Chromo-Acetic Acid**

**Chromo-Formic Acid.**—see **Rabl's Chromo-Formic Acid**

**Chromo-Nitric Acid.**—see **Perenyi's Chromo-Nitric Acid**

**Chromo-Osmic Acid.**—see **Flesch's Chromo-Osmic Acid**

**Chromyl Chloride.**—see **Chromium Oxychloride**

**Chrysaniline Yellow Merck** (10)  
(Phosphine; Leather Yellow).—Mixture of salts of Diamidophenylacridine (chrysaniline), & its homologue, chrysotoluidine.—By-product in manuf. magenta.—Orange-yellow powd.—*Sol.* W., A. w. reddish-yellow color.—*Uses:* Dyeing leather reddish-yellow. Stain. bacteria in 2% solut.

**Chrysaniline Yellow Basic Merck** (75)  
(Asymmetric Diamidophenylacridine).—Yellow cryst.—*Sol.*, sl. W. & A.—*Melt.* 267–270° C.—*Uses:* Techn., to dye wool & silk yellow.

**Chrysanthemum.**—see **Parthenium**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Chrysanthemum Flowers**

(Dalmatian Insect Powder).—Flowers of *Chrysanthemum* (*Pyrethrum*) *cinerariæfolium*, Benth. & Hooker. Composite.—*Habit.*: Dalmatia; Montenegro; Western Asia.—*Etymol.*: *Chrysanthemum* fr. Grk. "chrysos," gold, & "anthos," flower, fr. the color of the flower. *Pyrethrum* fr. "pyr," fire, & "athroos," strong, *i.e.*, roots of certain spec. have a burning taste.—*Constit.*: Volat. oil; chrysanthemic acid; pyrethrototoxic acid; chrysanthemin; a cryst. glucoside(?); sugar(?).—*Uses*: Insecticide.

**Chrysarobin Merck**

(3)

(Medicinal "Chrysophanic Acid"; Purified Goa Powder).—Neut. prin. fr. Goa powder, a subste. deposited in wood of *Vouacapaoua Araroba* (Aguiar), Druce. Leguminosæ.— $C_{20}H_{16}O_2$ .—Micro-cryst., orange-yellow powd.; turns brownish-yellow on expos. Yields chrysophanic acid on oxidation.—Sp. Gr. 0.920–0.922 (U. S. P.).—*Sol.* 4812 W., 308 A., 25 benzene, 18 C., 114 E., 30 amyl alc., & 230  $CS_2$ , at 25° C. (U. S. P.); also alkalies.—*Melt.* 157° C. (U. S. P.).—Antiparasitic; Alter.—*Uses*: *Eztern.*, psoria, herpes tonsurans, pityr. versic., hemorrhoids; do not cover large surf. at one time. Oint's 1:10–50 simple cerate or lard; or chrysarobin (10), acid salicylic (10), ether (15), flex. collod. (100).—*Dose*  $\frac{1}{8}$  grain (0.008 Gm.).—*Caut.* Causes dangerous inflam. of eye if allowed to enter even as dust.

*Chrysarobin, Crude.*—see **Araroba**

**Chrysarobin Oxidized Merck**

(100)

Dark brown powd.—*Sol.* B., C., & hot A.—*Uses*: As of chrysarobin, in oint.—Milder action than that of chrysarobin.

*Chrysarobin Tetracetate.*—see **Leniobin**

*Chrysarobin Triacetate.*—see **Eurobin**

*Chrysaureine.*—see **Tropæoline 000 No. 2**

**Chrysene Merck.**—Pure

(175)

Fr. benzene.— $C_{18}H_{12}$ , or,  $C_{10}H_6 \cdot (CH_2)_2 C_6H_4$ .—Colorl. scales; reddish-violet fluoresc.—*Sol.* A., B., & toluene.—*Melt.* 250° C.

*Chrysoiline.*—see **Yellow T**

**Chrysoidine Orange Merck**

(8)

(Diamidoazobenzene Hydrochloride).—Diazocompound fr. aniline w. monophenylenediamine.— $C_{12}H_{12}N_4Cl$ , or,  $C_{12}H_{15}N_4 \cdot 2C_6H_5 \cdot (NH_2)_2 HCl [1:2:4]$ .—Reddish-brown, cryst. powd.—Nontoxic.—*Sol.* W. with brown color.—*Uses*: Techn., coloring confectionery & liqueurs. Dyes wool, silk & cotton orange.

*Chrysoine.*—see **Yellow T**

*Chrysophyllum Glyciphæum.*—see **Monesia Bark**

*Churchill's Iodine Caustic.*—see **Solution Iodine, Caustic**

*Cibotium Barometz.*—see **Penghawar Djambi**

**Cichorium**

(Wild Succory; Blue Daisy).—The whole plant *Cichorium Intybus*, L. Compositæ.—*Habit.*: Europe; Asia; Northern Africa; natur. in U. S.—*Etymol.*: Fr. Grk. "kinein," to move, & "chorion," field, *i.e.*, the plant grows along the edges of fields.—*Constit.*: Bitter principle; resin; potassium salts. Root contains in addition volat. oil, tannin, inulin, & sugar.—*Aper.*; Tonic.—*Uses*: Root is alterative, & is used as a coffee surrogate, & in jaundice & congest. of liver, instead of extr. taraxacum.—*Dose*: Alcoh. extr., 20–40 grains (1.3–2.6 Gm.).

**Cicuta**

(Water Hemlock; Cowbane; Brook-tongue).—Whole plant, *Cicuta virosa*, L. Umbelliferae.—*Habit.*: Europe; Asia; northern North America.—*Etymol.*: Fr. Grk. "kyein," hollow, referring to the stems, which are hollow.—*Constit.*: Cicutoxin; cicutine.—Antispasm.; Antiscorbatic; Anodyne; Analges.; Sedat.—*Uses*: Rheum., gout, spasm, cough, & nerv. & sick headache.—*Dose*: Fld. extr., 1–5  $\mathfrak{m}$  (0.06–0.3 Cc.).—*Antid.*, emetics, stomach siphon, tannic acid, coffee, atropine, artif. respir., &c.

*Cicutine.*—see **Coniine**

**Cimicifuga.**—U. S. P.

(Black Snake Root; Actæa; Black Cohosh; Bugbane; Bugwort).—Dried rhizome & roots of *Cimicifuga* (*Actæa*) *racemosa* (L.), Nuttall. Ranunculaceæ.—*Habit.*: U. S.; Canada.—*Etymol.*: Lat. "cimex," bedbug, & "fugere," to drive or fly away, *i.e.*, its odor is said to drive away bedbugs. Grk. "akteia," elder, *i.e.*, its lvs. are said to resemble those of the elder tree. Lat. "racemosus," full of racemes, *i.e.*, the flowers.—*Constit.*: Resin; cimicifugin; tannin; volat. oil; sugar.—Alter.; Analg.; Diuret.; Diaphor.; Expecto.; Antispasm.; Sedat.; Emmen.—*Uses*: Chiefly in rheum.; also in fevers, asthma, chorea, heart dis. (when digitalis contraindic.), myal., neuralg., hyster., dropsy, dysmenor., & amenor.—*Doses*: 5–45 grains (0.3–3 Gm.).—Alcoh. extr., 3–10 grains (0.2–0.6 Gm.).—Fld. extr., 15–45  $\mathfrak{m}$  (1–3 Cc.).—Tinct., 20–120  $\mathfrak{m}$  (1.3–3 Cc.).

**Cimicifugin Merck**

(30)

(Macrotin).—Resinoid fr. roots *Cimicifuga racemosa*, Nutt.—Yellowish-brown, hygrosc. powd.—*Sol.* A.—Antispasm.; Nerv.; Oxytoic.—*Uses*: Rheum., gout, dropsy, hyst., St. Vitus's dance, dysmenor., abn. pregn., tinnitus aurium, & phth.—*Dose* 1–2 grains (0.06–0.12 Gm.).

*Cina.*—see **Santonica**

*Cincholepidine.*—see **Lepidine**

**Cinchona (Calisaya).**—U. S. P.

(Peruvian Bark; Yellow Cinchona or Calisaya Bark; Jesuits' Bark).—Dried bark of *Cinchona Calisaya*, Weddell, C. Ledgeriana Moens, C. officinalis L., & of hybrids of these w. o. spec. of *Cinchona*. Rubiaceæ.—*Habit.*: South

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



America; cultivated in Java, India, Jamaica, Ceylon, & West Africa.—*Etymol.*: Fr. "kina" or "quina," the Peruvian name of the bark. Or, perhaps, more properly fr. "Chinchon," after Countess Ana de Osorio, wife of Count Chinchon, Viceroy of Peru; she was cured of tertian fever by this bark in 1638, by recommendation of a Jesuit. "Calisaya" is the Spanish & Indian name of the bark. Or, Calisaya fr. "colli," remedy, & "salla," stony ground, hence more properly "colisalla," because calisaya grows upon stony ground. (There is no province named "Calisaya" in Peru).—Quills or flat pieces of varying size; gray extern.; yellowish cinnamon-colored intern.; inner surface nearly smooth; granul. & short-fibrous; tawny-yellow color; powd. light cinnamon-brown; slightly arom. odor, & persistent bitter taste.—*Constit.*: Abt. 35 natural cinchona alkaloids (chiefly quinine); cinchotannic acid,  $C_{14}H_8O_9 + 2H_2O$ ; quinic acid,  $C_{12}H_{12}O_6$ ; cinchona red,  $C_{28}H_{22}O_{14}$ ; volat. oil; quinic acid,  $C_{24}H_{34}O_6$ , &c.—Bitter Tonic; Febrif.; Antiper.; Astring.—*Uses*: Malaria, anorexia, debil., &c.; source of quinine & other cinchona alkaloids.—*Extern.*, as poultice for felons, gangrenous ulcers, &c.—*Doses*: 10–15 grains (0.6–1 Gm.) as tonic; 30–60 grains (2–4 Gm.) as antiper., 2–3 t. p. d.—Alcoh. extr., 3–5 grains (0.2–0.3 Gm.) tonic, 15–30 grains (1–2 Gm.) antiper.—Fld. extr., tonic, 15–60  $\text{m}$  (1–4 Ce.); antiper., 30–120  $\text{m}$  (2–8 Ce.).—Tinct., 60–120 (4–8 Ce.).—Comp. tinct., 60–240  $\text{m}$  (4–15 Ce.).

### Cinchona (Carthagera)

(Carthagera Bark).—Var. spec. of Cinchona (*C. lanceolata*, *C. lanceifolia*, *C. cordifolia*, &c.). Rubiaceae.—*Habit.*: South America.—*Etymol.*: See Cinchona (Calisaya).—Quills & half-quills; periderm whitish, ocher-colored or yellowish-brown, & soft; inner surface cinnamon-brown, with orange or reddish tint; inner fract. fibrous.—*Constit.*, *Uses*, & *Doses*: As of cinchona (calisaya).

### Cinchona (Loxa).—U. S. P.

(Loxa Bark; Cinchona Pallida; Crown Bark; Pale Cinchona; Loja Bark; Huanuco Bark; Cuenca Bark).—Bark of Cinchona officinalis, L., & other sp. of *C. Rubiaceae*.—*Habit.*: Loxa & other parts of Ecuador; cultivated in India.—*Etymol.*: See Cinchona (Calisaya).—Thin single or double quills, more covered with lichens than other varieties (a sign of good quality); periderm grayish to blackish-brown; inner surface pale to reddish-brown; fract. slightly fibrous & short; yields pale-brown powd.—*Constit.*: Cinchona alkaloids (chiefly quinine, 60–70% of the total alkaloids); otherwise like cinchona (calisaya).—*Uses* & *Doses*: As of cinchona (calisaya).

### Cinchona (Succirubra).—U. S. P.

(Red Cinchona; Red Peruvian Bark; Red Bark; St. Ann's Bark).—Dried bark of Cinchona succirubra, Pavon, or of its hybrids. Rubiaceae.—

*Habit.*: S. America; cultivated in Japan, Java, India, & Western Africa.—*Etymol.*: Succirubra fr. Lat. "sucus," juice, & "ruber," red, i.e., the sap is first colorless, then white, & finally red on exposure. See also Cinchona (Calisaya).—Quills or incurved pieces of varying length; outer surface covered w. grayish-brown cork; few, most short transverse fissures; inner surface more or less deep-reddish brown; fract. short-fibrous; slight odor, & bitter, astring. taste.—*Constit.*, *Uses*, & *Doses*: As of cinchona (calisaya).

### Cinchonamine Merck.—Pure, cryst. (1000

Fr. Remijia Purdieana Wedd. (False Cuprea bark).— $C_{19}H_{21}N_2O$ .—Yellowish-wh. cryst.—*Sol.* A., E., C., B., carbon disulph.; v. sl. in W.—*Melt.* 184–185° C.—*Uses*: Reag.

### Cinchonamine Hydrochloride Merck (1250

$C_{19}H_{21}N_2O.HCl + H_2O$ .—Yellowish-wh. powd.—*Sol.* A., & W.

### Cinchonamine Nitrate Merck (900

$C_{19}H_{21}N_2O.HNO_3$ .—Wh. to yellowish cryst.—*Sol.*, v. sl. in W., & A.; insol. in dil. nitric acid. The least soluble nitrate known.

### Cinchonamine Sulphate Merck (900

(Acid Cinchonamine Sulphate; Cinchonamine Bisulphate).— $C_{19}H_{21}N_2O.H_2SO_4$ .—Colorl. cryst.—*Sol.* W.

### Cinchonidine Merck.—Pure, cryst. (10

Alkaloid fr. certain var. Cinchona (chiefly red).— $C_{19}H_{22}N_2O$ .—Wh. prisms, or wh. powd., light masses; v. bitter taste.—*Sol.*, dil. acids, A., C.; sl. E.; v. sl. in W.—*Melt.* 200–207° C.—Most of the salts are affected by light.—Antiper.; Bitter Tonic; &c., like quinine.—*Uses*: Intermit. & remit. fever, anorexia, &c.—*Doses*: 15–30 grains (1–2 Gm.), betw. parox.; tonic, 1–2 grains (0.06–0.12) 3 or 4 t. p. d., in pills or syrup.

### Cinchonidine Bisulphate Merck

(Cinchonidine Disulphate; Acid Cinchonidine Sulphate).— $C_{19}H_{22}N_2O.H_2SO_4 + 5H_2O$ .—Striated prisms.—*Sol.* W., A.—*Uses* & *Doses*: As of cinchonidine.

### Cinchonidine Borate Merck (22

$C_{19}H_{22}N_2O.B(OH)_3(?)$ .—Wh. powd.—*Sol.* A.

### Cinchonidine Dihydrobromide Merck (12

$C_{19}H_{22}N_2O.(HBr)_2$ .—Yellowish prisms.—*Sol.* W.

### Cinchonidine Disulphate. — see Cinchonidine Bisulphate

### Cinchonidine Hydriodide Merck (20

$C_{19}H_{22}N_2O.HI + 2H_2O$ .—Yellowish-wh. cryst.—*Sol.* W.

### Cinchonidine Hydrochloride Merck (20

$C_{19}H_{22}N_2O.HCl + 2H_2O$ .—Wh. prisms.—*Sol.* W., A., C.

### Cinchonidine Salicylate Merck (7

$C_{19}H_{22}N_2O.C_7H_6O_2$ .—Colorl., micros. cryst.—*Sol.* A.; v. slightly W.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Cinchonidine Sulphate Merck** (6)  
(Neutral Cinchonidine Sulphate).—Fr. mother liq. of quinine sulphate.— $(C_{19}H_{22}N_2O)_2 \cdot 11_2SO_4 + 3H_2O$ .—Wh., silky, acie. cryst.; effloresce on expos.—*Sol.* 63 W., 72 A., 4400 E., & 900 C., at 25° C. (U. S. P.).—*Melt.* 205.3° C. (U. S. P.).—*Uses & Doses:* As of cinchonidine.

**Cinchonidine Tannate Merck** (14)  
Comp. varia.—Yellow, amorph. powd.; tastel.—*Sol.* A.—*Uses:* Intermit. & remit. fevers of children.—*Doses:* Adults, 8–15 grains (0.5–1 Gm.); children,  $1\frac{1}{2}$ –8 grains (0.1–0.5 Gm.).

**Cinchonidine Tartrate Merck** (20)  
 $(C_{19}H_{22}N_2O)_2 \cdot C_4H_6O_6 + 2H_2O$ .—Wh., cryst. powd.—*Sol.*, hot W., & hot A.

**Cinchonine Merck.**—Pure, cryst., & precip. (5)  
Alkaloid fr. bark var. sp. *Cinchona*.— $C_{19}H_{22}N_2O$ .—Wh., shin. prisms, or need.; tastel., w. bitter after-taste.—*Sol.*, dil. acids, 116 A., 163 C.; v. sl. E. & W.—*Melt.* 240–250° C., w. partial decomp.—Antiper.; Bitter Tonic, &c., like quinine.—*Uses:* Malar., intermit. & remit. fevers, anorexia, &c.—*Doses:* Antiper., 15–30 grains (1–2 Gm.), betw. parox.; tonic, 1–2 grains (0.06–0.12 Gm.).

do. Merck.—Highest Purity, free fr. Cinchotine (30)

**Cinchonine Benzoate Merck** (11)  
 $C_{19}H_{22}N_2O \cdot C_6H_5O_2$ .—Wh. to yellowish cryst.—*Sol.* A., & sl. in W.

**Cinchonine Ferrocitrate.**—see Iron & Cinchonine Citrate

**Cinchonine Glycyrrhizinate Merck** (13)  
Brownish to gray powd.—25% cinchonine.—*Sol.* A.—*Uses & Doses:* As of quinine sulphate.

**Cinchonine Hydrobromide Merck** (17)  
 $C_{19}H_{22}N_2O \cdot HBr$ .—Wh. cryst.—*Sol.* W., & A.—*Uses:* As of cinchonine.

**Cinchonine Hydrochloride Merck** (6)  
 $C_{19}H_{22}N_2O \cdot HCl + 2H_2O$ .—Fine, wh., bitter cryst.—*Sol.* 1 A., 22 W., 550 E., C.—*Uses & Doses:* As of cinchonine.

**Cinchonine Iodosulphate Merck** (35)  
(Antiseptol).—Fr. aqu. solut. cinchonine sulph., by solut. iodine & potass. iodide.—Reddish-brown, odorl. powd.—50% iodine.—*Sol.* A., C.; insol. W.—*Uses:* Inst. of iodoform, chiefly extern.—*Dose* 1–5 grains (0.06–0.3 Gm.).

**Cinchonine Nitrate Merck** (20)  
 $C_{19}H_{22}N_2O \cdot HNO_3 + H_2O$ .—Colorl. prisms.—*Sol.* W.—*Uses:* As of cinchonine.

**Cinchonine Salicylate Merck** (11)  
 $C_{19}H_{22}N_2O \cdot C_7H_5O_3$ .—Wh. to reddish cryst.—*Sol.* A., & hot W.—*Uses:* Rheum., espec. in malar. regions.—*Dose* 5–20 grains (0.3–1.3 Gm.).

**Cinchonine Sulphate Merck** (3)  
(Neutral Cinchonine Sulphate).— $(C_{19}H_{22}N_2O)_2 \cdot 11_2SO_4 + 2H_2O$ .—Colorl., lustr. cryst.; v. bitter.—*Sol.* 58 W., 10 A., 2300 E., 69 C. at 25° C. (U. S. P.).—*Melt.* 198.5° C. (U. S. P.).—*Uses & Doses:* As of cinchonine.

**Cinchonine Tannate Merck** (6)  
Variab. comp.—Yellow, amorph. powd.—*Sol.* A.; v. sl. in W.—*Uses:* As of cinchonine.

**Cincholine.**—see Quinidine

**Cinene.**—see Dipentene

**Cineol.**—see Eucalyptol

**Cineraria Juice** (120)  
Fr. fresh herb *Cineraria maritima*, L., preserv. w. alc.—*Uses:* *Extern.*, cataract of the eye; 2 drops 3 t. p. d.

**Cinnabar.**—see Mercury Sulphide, Red

**Cinnabar, Austrian.**—see Lead Chromate, Basic

**Cinnamaldehyde.**—see Aldehyde Cinnamic

**Cinnamene** (or, -ol).—see Styrene

**Cinnamon Brown.**—see Bismarck Brown

**Cinnamon (Cassia)**  
(Cinnamon; Cassia Bark; Chinese Cinnamon).—Bark of *Cinnamomum Cassia*, Blume, Lauraceæ.—*Habit.*: Southern China; Anam, &c.—*Etymol.*: Grk. "kinamomon," fr. "kinein," rolled, "a" & "momos," fault or blemish; or, fr. Arabic "kinamon" fr. "quaneh," a cane; or Malay "kaju manis," sweetwood. "Cassia," fr. Grk. "kasia," perfume, or fr. Hebrew "quetsioth, quatsa," to peel off (the bark). Dioscorides designated the bark of *Laurus Cassia* by the name "kassia."—Quills of varying length, abt.  $\frac{1}{25}$  in. (1 Mm.) or more thick; nearly deprived of its corky layer; yellowish-brown; nearly smooth fracture; fragrant odor; sweet arom. taste.—*Constit.*: Etheral oil; cinnamic aldehyde; tannin; mucilage; sugar.—*Stomachic*; Hemost.; Carmin.; Astr.; Stim.—*Techn.*, source of oils, & as flavoring.—*Doses:* 5–30 grains (0.3–2 Gm.).—Fld. extr., 10–30 M (0.6–2 Ce.).—Tinet. 15–45 M (1–3 Ce.).

**Cinnamon (Ceylon).**—U. S. P.

Inner bark of the shoots of *Cinnamomum zeylanicum*, Breyne. Lauraceæ.—*Habit.*: Ceylon, Sumatra, Borneo; cultivated in tropical Africa, America, & Asia.—*Etymol.*: See Cinnamon (Cassia).—Long, closely rolled quills composed of 8 or more layers of bark of the thickness of paper; pale yellowish-brown; outer surface smooth; fracture short-splintery; fragrant odor; sweet, arom. taste.—*Constit.*, *Uses*, & *Doses:* As of cinnamon (cassia).

**Cinnamon (Saigon).**—U. S. P.

Bark of an undetermined sp. of *Cinnamomum*, Lauraceæ.—*Habit.*: Anam (Cochin China); cultivated in Java, Sumatra, S. America, &c.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



—*Etymol.*—See Cinnamon (Cassia); & "Saigon," a city in southern Annam, its habitat.—Quills abt. 6 in. (15 Cm.) Long &  $\frac{2}{10}$  in. (10-15 Mm.) diam., w. bark  $\frac{1}{10}$  in. (2-3 Mm.) thick, gray or light grayish-brown extern., cinnamon-brown or dark-brown intern.; short, granular frast.; fragrant odor, sweet, warm, somew. astring. taste.—*Constit., Uses & Doses:* As of cinnamon (cassia).

**Cinnamon Root.**—see **Conyza**

**Cinnamyl Cinnamate.**—see **Styracin**

**Cinnamyl-eugenol**

$C_{15}H_{18}O_2$ , or,  $C_6H_5 \cdot C_6H_4 \cdot OCH_2 \cdot CO_2(CH_2)_5C_6H_5$ .—Colorl., shin. need.; odorl., tastel.—*Sol.* C., E., acetone, hot A.—*Melt.* 90-91° C.—*Antisept.*; *Antituberc.*—*Uses:* Hypoderm., instead of eugenol, in tuberculousis.—*Inj.*, 2-8 M (0.12-0.5 Cc.) of olive-oil solut.

**Cinnamyl-guaiacol.**—see **Styracol**

**Cinnamylmetacresol.**—see **Hetokresol**

**Cinnyl Cinnamate.**—see **Styracin**

**Citarin** (15)

(Sodium Anhydromethylene-citrate).— $(CH_2-COO)Na_2 \cdot C_6O_5C_2H_2O$ .—Wh., cryst. powd.—*Sol.*, eas. in W.; insol. A.—*Antilithemic*; *Uric-acid solvent.*—*Uses:* Gout, rheum.—*Dose* 15-30 grains (1-2 Gm.) 3-4 t. p. d.

**Citral Merck** (15)

Aldehyde in oil of lemon & some o. essential oils.— $C_{10}H_{16}O$ .—Golden-yellow liq.; str. lemon odor.—*Sp. Gr.* 0.899 at 15° C.—*Boil.* 228-229° C.—*Uses:* Flavor; & fortifying oil of lemon.—*Caut.* Keep cool & dark.

**Citro-Molybdic Acid Paper**

(Mann's Paper).—Paper impregnated w. a solut. of molybdic & citric acids & dried.—*Uses:* Detecting water in alcohol, ether, air, &c.; the dry blue paper is decolorized by moisture in air, or by water in liquids.

**Citro-Picric Acid Paper, Geissler-Oliver**

Wh. paper impregnated w. a solut. of picric & citric acids & dried.—*Uses:* Detecting albumin in urine. On immersing a strip of the paper in urine, albumin is pptd.

**Citro-Potassium Ferrocyanide Paper, Geissler-Oliver**

Wh. paper impregnated w. a solut. potassium ferrocyanide & citric acid & dried.—*Uses:* Detecting albumin in urine. On immersing a strip of the paper in urine, albumin is pptd.

**Citro-Potassium Mercuric Iodide Paper, Geissler-Oliver**

Wh. paper impregnated w. a solut. potass.-mercuric iodide & citric acid.—*Uses:* Detecting albumin in urine. On immersing a strip of the paper in urine, albumin is pptd.

**Citro-Sodium Tungstate Paper, Geissler-Oliver**

Wh. paper impregnated w. a solut. sod. tungstate & citric acid & dried.—*Uses:* Detecting albumin, mucin, uric acid, peptones, & creatinin in urine. On immersing a strip of the paper in urine a precipitate forms.

**Citronin A.**—see **Naphthol Yellow S**

**Citrophen** (18)

Compound of citric acid w. paraphenetidine.— $C_6H_4OH \cdot (CONHOC_2H_5C_6H_4)_3 + 3H_2O$ .—Wh. powd. or cryst.; faint, persistent acidul. taste.—*Sol.* 40 cold W.—*Melt.* 181° C.—*Antipyret.*; *Antineural.*; *Sed.*—*Uses:* Typhoid fever, migraine, neural; &c.—*Dose* 8-15 grains (0.5-1 Gm.).—*Max. D.* 90 grains (6 Gm.) p. d.

**Citrullin Merck** (400)

Resinoid fr. *Citrullus Colocynthis*, L.—Yellow, amorph. powd.—*Sol.* A., E.—*Cathartic.*—*Uses:* General purg., pref. by *rectum*. Largely used in veter. med.—*Dose*  $\frac{1}{10}$ - $\frac{1}{3}$  grain (0.01-0.02 Gm.) diss. in 15 M (1 Cc.) each alc. & glyc., & dil. with W.

**Citrullus Colocynthis.**—see **Colocynth**

**Citrullus Vulgaris**

(Watermelon).—Seed of *Citrullus vulgaris*, Schrader. (C. *Citrullus* [L.] Karst.).—*Cucurbitaceae.*—*Habit.*: Asia; cultivated everywhere.—*Etymol.*: Fr. Lat. "citrus," orange, referring to the orange-red color of the fruit of the species when cut.—*Constit.*: Resin; albumin; dextrose.—*Diuret.*; *Diaphor.*—*Uses:* Strangury & diseases of genito-urinary system.—*Dose:* Fld. extr., 1-2 fl. dr. (4-8 Cc.).

**Citrus Aurantium or Vulgaris.**—see **Orange**

**Civet** (95)

(Zibeth).—Unctuous secretion fr. receptacles between the anus & genitalia of both male & female Viverra Civetta (Civet cat), Schreber, of Africa, & fr. V. Zibetha, Schreber, of the East Indies. Class: Mammalia; Ord.: Carnivora; Fam.: Viverridae.—*Habit.*: Asia; Molucca Islands; East Indies.—*Etymol.*: Fr. "zebad," the Arabic name of the animal.—Semisolid, yellowish to brown, unctuous substance; unpleasant, subacid, bitter taste; fusible; & burns without leaving much residue.—*Sol.*, partly in hot A., & in E.; insol. in W.—*Constit.*: Fixed & volat. oils; ammonia; coloring matter; resin.—*Uses:* Formerly used like castor.; now used only in perfumery as a fixative.

**Clark's Soap Solution**

Cont. an amount of pure potass. soap (potass. oleate) corresponding with a solution barium chloride containing 0.523 Gm. per liter water (corresponding to 0.120 Gm. calcium oxide [CaO] in 1 liter).—*Uses:* In water analysis, for determining hardness.

**Clary.**—see **Sclarea**

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Clavin Merck**

(1500

Act. principle fr. ergot.— $C_{11}H_{22}N_2O_4$ .—Colorl. cryst.—*Sol.* W., dil. A.; insol. absol. A., E., benzin, acetic ether.—Powerful Oxytocic.—*Uses:* As of ergotin, but causes no spasms or o. toxic effects, & no gangrene.—Marketed in two forms of tablets ea. contain.  $\frac{1}{3}$  grain (0.02 Gm.) clavin, one form w. sugar intended for intern. use, the o. w.  $\frac{1}{3}$  grains (0.08 Gm.) sod. chloride for hypoderm. use.—*Dose* 1 tabl.—That given hypoderm. is diss. in 15 ml (1 Cc.) water.

*Cleavers.*—see **Galium**

*Clobur; Spiny, or Thorny.*—see **Xanthium**

*Clover.*—see **Trifolium**

*Cloves.*—see **Caryophyllus; Anthophylli**

**Cnicus**

(Holy Thistle; Our Lady's Thistle; Carduus Benedictus; Carbenia).—Herb & seed of Cnicus benedictus, Gaertn. (Carbenia benedict., Adams). Compositae.—*Habit.:* Southern Europe; U. S.—*Etymol.:* "Cnicus" fr. Grk. "knekos," safflower; the name was early transferred to thistles. "Carduus" fr. Lat. "arduus," spiny, fr. the Celtic "ard," point. Lat. "benedictus," blessed, because of the curative properties of the plant.—*Constit.:* Herb: Cnicin,  $C_{42}H_{56}O_{15}$ ; tannin; resin; fixed oil; gum.—*Seed:* Cnicin.—*Herb:* Bitter Tonic; Diaphor.; Emmen.; Emetic.—*Seed:* Diur.; Febrif.—*Uses:* Amenor., dyssep., intermit. fever.—*Doses:* Herb, 10–60 grains (0.6–4 Gm.).—Aqu. extr., 5–10 grains (0.3–0.6 Gm.).—Fld. extr., 30–60 ml (2–4 Cc.).

**Cobalt Merck.—Pure**

(100

*Etymol.:* Of Slavonic origin, & derived fr. "kow," ore, or "kowalti," ore-like; according to others, named for the mischievous mountain spirit "Kobold," because the miners were often deceived by the silver-like, but useless ores; again, believed to be derived fr. Grk. "kobalos," parasite, because the metal is almost always found with nickel.—Metal.—Co.—Steel-gray, shin., v. ductile, hard, & somew. mall.—Sp. Gr. 8.710 at 15° C.—*Uses:* Techn., chiefly for galvanoplasting.

do. Merck.—98–99%, Cubes, sheets, & powd. (20

do. Merck.—Highest Purity, free from Nickel (150

**Cobalt Acetate Merck**

(8

(Cobaltous Acetate).— $Co(C_2H_3O_2)_2 + 4H_2O$ .—Reddish-violet, deliq. cryst.—*Sol.* W.—*Uses:* Sympathetic ink.—*Caut.* Keep well stoppered.

**Cobalt Arsenate Merck**

(20

(Normal Cobaltic Arsenate; Natural Erythrine).—Native cobalt bloom or erythrite.— $Co_2(AsO_4)_2 + 8H_2O$ .—Violet-red powd.—*Sol.*, dil. mineral acids.—*Uses:* Techn., for painting on glass & porcelain in light-blue colors.

do. Merck.—Commercial "A. K. O." (10

**Cobalt Bromide Merck**

(20

(Cobaltous Bromide).— $CoBr_2 + aq.$ —Red cryst.—*Sol.* A., W.—*Uses:* In hygrometers.

**Cobalt Butyrate Merck**

(50

(Cobaltous Butyrate).— $Co(C_4H_7O_2)_2$ .—Violet-red, gran. powd.—*Sol.* W.

**Cobalt Carbonate Merck.—Pure**

(6

(Cobaltous Carbonate).— $CoCO_3$ .—Light, rose-colored powd.—*Sol.*, dil. acids.—*Uses:* Manuf. cobalt oxides & cobalt pigments.

do. Merck.—Highest Purity, free fr. Ni (50

do. Merck.—Commercial, "K. O. H." (10 Violet-gray powd.

**Cobalt Chloride Merck.—Pure**

(4

(Cobaltous Chloride).— $CoCl_2 + 6H_2O$ .—Ruby-red cryst.—*Sol.* W., A.—*Uses:* Sympathetic ink, barometers, hygrometers, galvanoplasting, &c.

do. Merck.—Highest Purity (8

do. Merck.—Highest Purity, free fr. Ni (25

**Cobalt Chromate Merck**

(9

(Cobaltous Chromate).— $Co_2CrO_4(OH)_2 + H_2O$ .—Brown powd.—*Sol.*, solut. chromic acid.

**Cobalt Citrate Merck**

(10

(Cobaltous Citrate).— $Co_2(C_6H_5O_7)_2 + aq.$ —Pale-red, amorph. powd.—*Sol.*, sl. W.

**Cobalt Cyanide Merck**

(30

(Cobaltous Cyanide).— $Co(CN)_2$ .—Reddish-gray powd.—*Sol.*, solut. potass. cyanide.

**Cobalt Formate Merck**

(15

(Cobaltous Formate).— $Co(HCOO)_2 + aq.$ —Red cryst.—*Sol.* W.

**Cobalt Hydroxide.—Cobaltic**

(50

(Cobaltic Hydrate).— $Co_2O_3 \cdot 3H_2O$ , or  $Co_2(OH)_6$ .—Dark brown powd.

**Cobalt Hydroxide.—Cobaltous**

(50

(Cobaltous Hydrate).— $Co(OH)_2$ .—Rose-red, cryst. powd.; brown on exposure.

**Cobalt Iodide Merck**

(35

(Cobaltous Iodide).— $CoI_2 + 6H_2O$ .—Brownish-red cryst.—*Sol.* W., A.—*Uses:* In hygrometers.

**Cobalt (Luteo-) Chloride Merck**

(150

(Luteocobaltic Chloride).—Fr. oxid'n of amm. solut. cobalt dichloride w. large amount amm. chloride.— $Co_2Cl_6 \cdot 12NH_3$ .—Orange-yellow cryst.—*Sol.* W.—*Uses:* Reag. for pyrophosphoric acid.

**Cobalt Nitrate Merck.—Pure**

(4

(Normal Cobalt, or Cobaltous, Nitrate).— $Co(NO_3)_2 + 6H_2O$ .—Red, deliq. cryst.—*Sol.*, eas. W.—*Uses:* Blowpipe reag.; also as antid., per os or hypoderm. in 0.5% solut., in poisoning by HCN.—*Techn.*, in manuf. cobalt pigments & sympathetic inks.—*Caut.* Keep well stoppered.

do. Merck.—Highest Purity, free fr. Ni (25

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulfate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Hydrochloride; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 and over=Very Expensive Articles.



**Cobalt Nitrate Merck.**—Reagent (15)  
(Cobaltous Nitrate).— $\text{Co}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}$ .—Red, monoclin. prisms; deliquesce in moist air.—*Sol.*, eas. W. A.—*Tests*: ( $\text{H}_2\text{SO}_4$ ) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 1 Ce.  $\text{HCl}$  (sp. gr. 1.124) + solut.  $\text{BaCl}_2$ —no turb.—(*Alkali Salts*) diss. 2 Gm. in 100 Ce.  $\text{H}_2\text{O}$ ; compl. ppt. all Co by add.  $\text{NH}_4\text{OH}$  + ( $\text{NH}_4$ ) $\text{HS}$ ; filter; evap. filtrate to dryness & ignite—wt. of res. not more than 0.005 Gm.—(*Zn*) 0.5 Gm. + 50 Ce.  $\text{H}_2\text{O}$  + 5 Ce. solut.  $\text{NaOH}$  (sp. gr. 1.3); filter; (to filtrate add)  $\text{NH}_4\text{HS}$ —no ppt.—(*Pb*; *Cu*) 2 Gm. + 50 Ce.  $\text{H}_2\text{O}$  + 2 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + aq.  $\text{H}_2\text{S}$ —no change.—(*Ni*) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 3 Gm.  $\text{KCN}$ ; boil till yellow; filter; to filtrate add solut.  $\text{KOH}$  & Br-water—no brown color.—*Uses*: Blow-pipe analysis for Al, Zn, Mg; prepar. sodium cobaltic nitrite for detect. K.  
*Note*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Cobalt Oleate Merck** (12)  
Brown, extract-like mass.—*Sol.*, fatty oils.

**Cobalt Oxalate Merck.**—Pure (10)  
(Cobaltous Oxalate).— $\text{CoC}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$ .—Pale flesh-colored powd.—*Insol.* W.

**Cobalt Oxide "A. K. O."**—see **Cobalt, Arsenate, Commercial**

**Cobalt Oxide "K. O. H."**—see **Cobalt Carbonate, Commercial**

**Cobalt Oxide "P. K. O."**—see **Cobalt Phosphate, Commercial**

**Cobalt Oxide Merck.**—Cobaltic (22)  
(Cobalt Peroxide or Sesquioxide).— $\text{Co}_2\text{O}_3$ .—Black powd.—*Sol.*, acids.—Loses oxygen when heated, & leaves residue of cobaltous oxide.

**Cobalt Oxide Black I a Merck.**—"F. F. K. O." (25)  
do. III a Merck.—"R. K. O." (6)  
*Uses*: Techn., & painting porcelain.

do. IV a Merck.—"P. O." (12)

**Cobalt Oxide Blue Merck.**—"F. U." (35)  
*Uses*: Techn., & painting porcelain.

**Cobalt Oxide Gray II a Merck.**—"F. K. O." (12)  
*Uses*: Techn., & painting porcelain.

**Cobalt Paper**  
Wh. paper charged w. cobaltous chloride solut., colored blue w. methylene blue and dried.—Indicator in volumetric estimation of Zn, Cu, & Ni, using sodium sulphide.—An excess of the sulphide develops a black spot on the paper.

**Cobalt Peroxide.**—see **Cobalt Oxide, Cobaltic**

**Cobalt Phosphate Merck** (18)  
(Normal Cobalt Phosphate).— $\text{Co}_3(\text{PO}_4)_2 \cdot 2\text{H}_2\text{O}$ .—Pink powd.—*Sol.*, dil. phosphoric acid.—*Uses*: Techn., manuf. cobalt pigments, coloring glass, & painting on porcelain in light-blue colors.  
do. Merck.—Commercial, "P. K. O." (18)  
*Uses*: Techn., & painting porcelain.

**Cobalt (Purpureo-) Chloride Merck** (18)  
(Purpureocobaltic Chloride).—Fr. roseocobaltic chloride, by  $\text{HCl}$  & heat— $\text{Co}_2\text{Cl}_6 \cdot 10\text{NH}_3$  or,  $\text{ClCo}(\text{NH}_3)_5\text{Cl}$ .—Sm., violet-red cryst.—*Sol.*, boil. W.; sl. in W. acid, w.  $\text{HCl}$ , alm. *insol.* cold W.

**Cobalt Rhodanide.**—see **Cobalt Sulphocyanate**

**Cobalt (Roseo-) Chloride Merck** (18)  
(Roseocobaltic Chloride).— $\text{Co}_2\text{Cl}_6 \cdot 10\text{NH}_3 + 2\text{H}_2\text{O}$ .—Red, dichroic, micro-cryst. powd.; very unstable.—*Sol.* W.

**Cobalt Sesquioxide.**—see **Cobalt Oxide, Cobaltic**

**Cobalt Sulphate Merck.**—Pure (4)  
(Cobaltous Sulphate).— $\text{CoSO}_4 \cdot 7\text{H}_2\text{O}$ .—Red prisms.—*Sol.* 24 W.—*Uses*: Techn., manuf. cobalt oxides & cobalt pigments used in decorating porcelain; cobalt-plating steel, iron, copper, brass & zinc galvanically; manuf. black flux for porcelain sigus, & cobalt glaze for porcelain.

do. Merck.—Highest Purity, free fr. Ni (25)

**Cobalt Sulphide Merck** (14)  
(Cobaltic Sulphide).— $\text{Co}_2\text{S}_3$ .—Black powd.—*Insol.* W.

**Cobalt Sulphocyanate** (35)  
(Cobaltous Sulphocyanide, or Rhodanide).— $\text{Co}(\text{CNS})_2 + 4\text{H}_2\text{O}$ .—Deep-blue, hygrosc. cryst.—*Sol.*, dil. acids.

**Cobalt Tartrate Merck** (12)  
Pink powd.—Alm. *insol.* W.

**Cobalt Yellow.**—see **Cobalt & Potassium Nitrite**

**Cobalt & Ammonium Sulphate Merck** (5)  
 $\text{CoSO}_4(\text{NH}_4)_2\text{SO}_4 \cdot 6\text{H}_2\text{O}$ .—Ruby-red, cryst. masses.—*Sol.* W.

**Cobalt & Nickel Sulphate.**—see **Nickel & Cobalt Sulphate**

**Cobalt & Potassium Cyanide Merck** (20)  
(Potassium Cobalticyanide).— $\text{Co}_2\text{K}_6(\text{CN})_{12}$ .—Yellowish cryst.—*Sol.* W.

**Cobalt & Potassium Nitrite Merck** (15)  
(Cobalt Yellow; Potassium Cobaltinitrite; also improperly "Indian Yellow").— $2\text{CoK}_3(\text{NO}_2)_6 + 3\text{H}_2\text{O}$ .—Yellow, micro-cryst. powd.—*Sol.*, sl. in W.—Antispasm.; Antidyspneic.—*Uses*: Asthma, dyspnea, & heart dis.—*Techn.*, as oil- & water-color pigment instead of Indian Yellow; also painting on glass & porcelain.—*Dose*  $\frac{1}{4}$ – $\frac{1}{2}$  grain (0.015–0.03 Gm.).

**Cobalt & Potassium Sulphate Merck** (15)  
(Potassium Cobaltosulphate).— $\text{CoK}_2(\text{SO}_4)_2 + 6\text{H}_2\text{O}$ .—Red cryst.—*Sol.* W.

**Coca.**—U. S. P.  
(Erythroxyton; Coca; Hayo; Ipado).—Dried lvs. of Erythroxyton Coca, Lamarck, Erythroxy-laceae, known commercially as Huanaco Coca, or of E. Truxillense Rusby, known commercially as Truxillo Coca.—*Habit.*: Bolivia; Chili; Peru.—*Etymol.*: Erythroxyton fr. Grk. "erythros,"

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



red, & "xylon," wood, *i.e.*, the wood of some species is red. "Coca" is the Spanish name of the plant.—*Constit.*: Cocaine,  $C_{17}H_{21}NO_4$ ; benzoylcegonine,  $C_{20}H_{24}NO_3$ ;  $COC_6H_5$ ;  $\alpha$ -hygrine,  $C_8H_{15}NO$ ;  $\beta$ -hygrine,  $C_{14}H_{24}N_2O$ ; cinnamylcocaine,  $C_{19}H_{23}NO_4$ ; truxillococaine (truxilline, isatropylcocaine, or cocamine),  $C_{19}H_{23}NO_4$ ; cocaicine; cocatannic acid; resin; wax, &c.—*Stim.*: Diaphor.; Anodyne; Anaphrodis.; Narcotic; Cerebr. Stim.; Bitter Tonic.—*Uses*: Hyster., melancholia, debil., dyspep., muse. exhaust., & var. dis. of nerv. system.—*Doses*: 15–60 grains (1–4 Gm.).—*Alcoh.* extr., 4–15 grains (0.25–1 Gm.).—*Fld.* extr., 20–60 m (1.3–4 Cc.).

### Cocaethylene Merck (900)

(Ethylbenzoylcegonine; Benzoylcegonine-ethyl-ester.—Fr. benzoylcegonine, by ethyl iodide.— $C_{18}H_{23}NO_4$ , or  $C_9H_{13}(C_2H_5O)NO_3 \cdot C_2H_5$ .—Colorl. cryst.; benumb tongue & lips.—*Sol.* A., E.; alm. insol. W.—*Melt.* 109° C.—*Uses*: Local aneth. like cocaine, but milder. Hence recom. in nervous patients.

### Cocaine Merck.—Pure (91)

(Methylbenzoylcegonine).—Alkaloid fr. lvs. of Erythroxylon Coca, Lam. & o. varieties of Coca.— $C_{17}H_{21}NO_4$ .—Colorl. cryst.; benumb lips & tongue.—*Sol.* 9.5 A., 15.5 dil. A.; 5.5 E.; C., B., carbon disulph., petroleum ether, & 2500 W. at 15° C.; (5 A., 3.8 E. at 25° C.; v. sol. C. & warm. A.; 14 oil turpent.; 12 olive oil; insol. G.—U.S.P.).—*Melt.* 98° C.—Cerebro-spinal Stim.; Local Anesth. Hydrochloride usually used.

do. Merck.—Pure, Synthetic (4000)  
Fr. egonine.—Identical w. natural cocaine.

### Cocaine Benzoate Merck (300)

$C_{17}H_{21}NO_4 \cdot C_6H_5O_2$ .—Colorl., partly cryst., gummy mass.—*Sol.* W., A.—*Uses*: In 5% aq. solut. like hydrochloride. Used hypoderm.; said to be painless.

### Cocaine Borate Merck (300)

White, cryst. powder.—68.7% cocaine.—*Sol.* A.—*Uses*: Eye-douches & subcutan. inj.; solut. more permanent than that of hydrochloride.

Cocaine Carbolate.—see Cocaine Phenate

### Cocaine Citrate Merck (300)

$(C_{17}H_{21}NO_4)_2 \cdot C_6H_8O_7$ .—Wh. cryst.—*Sol.* W.—*Dose*  $\frac{1}{20}$ –1 grain (0.003–0.06 Gm.).

### Cocaine Formate

$C_{17}H_{21}NO_4 \cdot CH_2O_2$ .—Lustr., silky, faintly bitter need.—*Sol.* 41 W.; 2.5 A.; diffic. E., C.; insol. oils.—*Melt.*, abt. 42° C. w. decomp.

### Cocaine Hydriodide Merck (300)

$C_{17}H_{21}NO_4 \cdot HI$ .—Yellowish cryst.—*Sol.*, sl. W., A.—Better adapted for cocaine cataphoresis than the hydrochloride.

### Cocaine Hydrobromide Merck (300)

$C_{17}H_{21}NO_4 \cdot HBr$ .—Wh. cryst.—*Sol.* W.—*Uses* & *Doses*: As of the hydrochloride.

### Cocaine Hydrochloride Merck.—Highest Purity, Medicinal, small or large crystals, gran. or powder (75)

(Cocaine Muriate; Cocaine Hydrochlorate).— $C_{17}H_{21}NO_4 \cdot HCl$ .—Colorl. cryst. or scales, or fine powd. (for insufflat.); saline, sl'y bitter taste, benumb tongue & lips.—*Sol.* 0.48 W., 3.5 A., 3 G., 20 C., 2800 E. at 15° C.; alm. insol. oils; (0.4 W., 2.6 A., 18.5 C. at 25° C.; 0.1 W. at 80° C.; 1.4 A. at 60° C.; insol. benzene, benzin, E.—U. S. P.).—*Melt.*, abt. 183° C. (abt. 189.9° C., U. S. P.).—Anesth.; Stim.; Sed.; Antisialag.; Antihidrotic; Antiprur.; Mydr.; Anod.—*Uses*: Local anesth., on muc. membr. (mouth, nose, eye, throat), toothache, catarrh, whoop-cough, tonsil., vomit., ring. in ears, &c., also hemostatic. It is contraind. in fatty heart, arterial atheroma, pernicious anemia, hyst., & epilepsy. MacLagan's test should be appl. to see no isatropylcocaine (heart-poison) present.—*Dose*  $\frac{1}{2}$ – $\frac{1}{10}$  grains (0.03–0.1 Gm.), in solution.—*Appl.*, 1–4% solut. in urethral inj., nose & throat, & eye drops; 10% solut. in vagina & rectum; general appl. 10–20% solut.; subcut.,  $\frac{1}{4}$ – $\frac{1}{2}$  grain (0.015–0.03 Gm.) in 1–10% solut.; in Schleich's infiltration anesth., 0.01–0.2% solut.; in Bier's lumbar anesth., solut. of  $\frac{1}{12}$ – $\frac{1}{2}$  grain (0.005–0.03 Gm.) in 8–45 m (0.5–3 Cc.) W.—*Max. D.* 2 grains (0.12 Gm.), single; 6 grains (0.36 Gm.), p. d.—*Antid.*, hydrated chloral, amyl nitrite, chlorof., paraldehyde, sulfonal, caffeine, morphine, digitalis, alcohol, ammonia, appl. of ice to head.—*Tests*: Chem. pure cocaine hydrochlor. should bear the following stringent tests: U. S. P. VIII Test: Dissolve 0.1 Gm. cocaine hydrochlor. in 85 Cc. cold W.; add 4 drops 10% ammonia water & stir well. Within 15 minutes, if pure, a cryst. precip. will settle, & the liq. remain clear. Stirring w. a glass rod aids reaction.—*Permanent Test*: Dissolve 0.1 Gm. of the salt in 5 Cc. water w. 3 drops dil.  $H_2SO_4$ , & add 3 drops decinorm. solut. of potass. permang. The pink tint must persist at least  $\frac{1}{2}$  hour.

*Note*.—The Merck brand is exceptionally free from the two highly toxic alkaloids, isatropylcocaine and cinnamylcocaine, which are so often found as impurities in cocaine hydrochloride. When ordering, please specify "Merck's."

### Cocaine Lactate Merck (300)

$C_{17}H_{21}NO_4 \cdot C_3H_5O_3$ .—Thick, wh. liq.; honey consist.—*Sol.* W., A.—Anesth.; Sed.; Antisept.—*Uses*: Partic. in tuberculous cyst., w. painful irrit. of bladder.—*Inj.* (into blad.),  $\frac{1}{2}$  grains (0.1 Gm.) diss. in 8 m (0.5 Cc.) each lactic acid & dist. W.

Cocaine Muriate.—see Cocaine Hydrochloride

### Cocaine Nitrate Merck (200)

$C_{17}H_{21}NO_4 \cdot HNO_3$ .—Colorl. cryst.—*Sol.* W.—*Uses* & *Doses*: As of hydrochloride; preferred for use w. ureth. inj. nitrate silver.—*Max. D.*  $\frac{3}{4}$  grain (0.05 Gm.), single;  $\frac{2}{10}$  grains (0.15 Gm.), p. day.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Cocaine Oleate Merck.**—25% (90  
Solut. of cocaine in oleic acid.—Partly cryst. mass.—*Sol.* A., oleic acid & oils.—*Uses:* Extern., local anesthetic.

do. Merck. —50% (180

do. —5%, 10%, & 15%

**Cocaine Phenate Merck** (570

(Phenol-Cocaine; Cocaine Carbolate).—Butter-like, alm. colorl., partly cryst. masses.—*Sol.* A., dil. A., E.; insol. W.—*Local Anesth.:* Sedat.; Analg.; Anticatar.—*Uses:* Extern., hypoderm. by dentists; dust-throat in catarrh w. acetanilide; inhaled w. menthol; dis. of respir. org., rheumat. —*Dose*  $\frac{1}{12}$ – $\frac{1}{6}$  grain (0.005–0.01 Gm.) 1–2 t. p. d. in capsules.—*Inf.*, 16  $\frac{1}{4}$  (1 Ce.) of 0.7% solut. in dil. A.—*Appd.* 1–3% solut. in 30% alc.; 5% powd. w. acetanilide, or pure.

**Cocaine Salicylate Merck** (300

$C_{17}H_{21}NO_4 \cdot C_7H_6O_3$ .—Wh. cryst.—*Sol.* W., A.—*Uses:* Spasim, asthma, &c.—*Dose:* As of the hydrochloride.

**Cocaine Sulphate Merck** (110

$(C_{17}H_{21}NO_4)_2 \cdot H_2SO_4$ .—Gran., wh., cryst. powd.—*Sol.* W., A.—*Uses & Dose:* As of the hydrochloride.

**Cocaine Tannate Merck** (300

Wh., amorph. powd.—*Sol.* A.

**Cocaine Tartrate Merck** (300

$(C_{17}H_{21}NO_4)_2 \cdot C_4H_6O_6$ .—Wh., cryst. powd.—*Sol.* W., A.—*Uses & Dose:* As of the hydrochloride.

*Cocculin.*—see **Picrotoxin**

**Cocculus Indicus**

(Fish-berries; India Berries; Oriental Berries).—Seed of *Anamirta paniculata*, Colebrooke. Menispermaceae.—*Habit.*: East Indies.—*Etymol.*: Grk. "kokkulos," small grains, referring to the appearance of the fruit.—*Constit.*: Menispermine; paramenispermine; picrotoxin,  $C_{30}H_{41}O_{13}$ ; picrotoxic acid; anamirtin (cocculin).—*Nervine*; Sedat.—*Uses:* Extern., in parasitic skin dis.; insecticide; also used as a fish poison.—*Techn.*, for preventing secondary fermentation of alcoholic liquors (but this use is very dangerous).—*Dose* 1–3 grains (0.06–0.2 Gm.) as powd., tinct., or fld. extr.—Fld. extr. is used also in 2–5% oint. or lotion for pedicul & other parasitic skin dis.—*Antid.*, stomach siphon, emetics, ammonia, brandy, &c.—*Caut.* Poison!

**Cochineal.**—U. S. P.

The dried female insect of *Pseudococcus cacti* (L.) Burmeister. Hemiptera. Found on various other cacti (*Opuntia Tuna*, &c.).—*Habit.*: Mexico, Central America; cultivated in W. Indies, Canary Is., Algiers, & Southern Spain.—*Etymol.*: Cochineal fr. Spanish "cochinilla," the name of the insect, & signifying "wood louse." "Coccus," fr. Grk. "kokkos," a grain or berry (fr. resemblance); "cacti," fr. Grk. "kaktos,"

a prickly plant.—Abt.  $\frac{1}{8}$  in. (5 Mm.) long; purplish-gray or purplish-black color; somewhat oblong & angular, flat or concave beneath, & convex above; faint odor, & slightly bitterish taste. Abt. 7000 insects to 1 lb.—*Constit.*: Carminic acid,  $C_{17}H_{18}O_{10}$  (or  $C_{11}H_{12}O_6$ ); coccerin (a wax),  $C_{30}H_{40}(C_{30}H_{60}O)_2$ . The coloring matter (alkali carminate) is contained only in the fatty parts of the insect, & in the yolk of the eggs, to the extent of fr. 10–14%.—*Uses:* In whoop-cough (rarely).—*Techn.*, as a coloring for food products, toilet preparations, &c.; manuf. of carmine & carminic acid; also as indicator in alkalimetry.—Fluid extr. is used for coloring medic. preparations.—*Dose* 2–10 grains (0.12–0.6 Gm.) sev. t. p. d. w.  $K_2CO_3$ .

do.—*Solution.*—N. F.

Fr. 65 Gm. cochineal, 32 Gm.  $K_2CO_3$ , 32 Gm. alum, 65 potass. bitart., 500 Cc. G., 32 Ce. A., & water to make 1000 Cc.

*Cochineal-Alum.*—see **Czokor's Alum Cochineal**

**Cochineal Paper**

Wh. paper impregnated w. aqueous cochineal solut. & dried.—*Uses:* Indicator (acids = red color; alkalis = violet color).

**Cochineal Tincture**

*Uses:* Staining nuclei, & as indicator in volum. determ. of alkali carbonates where litmus is inapplicable; also as coloring for foods, cosmetic preparations, &c.

**Cochlearia**

(Scurvy Grass; Scurvy Weed; Spoon-wort).—Whole plant, *Cochlearia officinalis*, L. Cruciferae.—*Habit.*: Europe; Asia; North America.—*Etymol.*: Fr. Grk. "kochlearion," spoon, referring to the shape of the leaves.—*Constit.*: Volat. oil; butyl isosulphocyanate,  $SCNC_4H_9$ ; bitter principle; tannin; salts.—*Stim.*; Antiscorbutic; Diuret.—*Uses:* Sea-scurvy & chron. rheum.; also as a blood purifier, & sometimes used as a salad.—*Dose:* Extr., 8–30 grains (0.5–2 Gm.).

*Cocoa Shells.*—see **Cacao Shell**

**Codeine Merck.**—Pure, cryst. or powder (81

(Methylmorphine).—Alkaloid fr. opium.— $C_{18}H_{21}NO_3 + H_2O$ .—Colorl., bitter, alkal. cryst., or wh. powd.—*Sol.* 3 A., 2 C., 30 E., B., carbon disulph., abt. 120 W. at 15° C.; (120 W., 1.6 A., 12.5 E., & 0.66 C. at 25° C.—U. S. P.).—*Melt.* 154.9° C., U. S. P.—*Uses:* Inst. of morphine as analgesic, but not for severe pains; in bronch., irritat. cough, ovarian pains, pains fr. tumors, insom. not due to viol. pain; to abate desire morphine habit; diab. mell.; bladder trouble complic. w. enlarged prostate; dist. respir. organs, &c.—*Dose*  $\frac{1}{2}$ –1 grain (0.03–0.06 Gm.).—*Inf.*, half as much.—*Max. D.* (all codeine salts)  $1\frac{1}{2}$  grains (0.1 Gm.) single; 5 grains (0.3 Gm.) daily.—*Antid.*, as of morphine.—Codeine salts are less poison. than morphine.—*Incomp.*, alkalis; alkaloidal precipitants; ammonium bromide, chlor-

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



ide, or valerate; salts of copper, iron, or lead.

*Note.*—Codeine Merck is suitable for use in the most exacting cases, because it has been repeatedly purified. It is adapted to the needs of the careful dispenser.

**Codeine Citrate Merck** (275)

$(C_{18}H_{21}NO_3)_2C_6H_8O_7$ .—Wh. cryst.—*Sol.* W.—*Uses & Dose:* As of codeine.

**Codeine Hydrobromide Merck** (250)

$C_{18}H_{21}NO_3 \cdot HBr + 2H_2O$ .—Wh. cryst.—*Sol.* W.—*Uses:* Espec. in nerv. cough, like codeine phosphate.—*Dose:* As of codeine.

**Codeine Hydrochloride Merck** (76)

$C_{18}H_{21}NO_3 \cdot HCl + 2H_2O$ .—Sm., fine, wh. need.—*Sol.* 20 W.; less than 1 boil. W.—*Uses & Dose:* As of codeine.

*Codeine Methylbromide.*—see **Eucodin**

**Codeine Nitrate Merck** (76)

$C_{18}H_{21}NO_3 \cdot HNO_3$ .—Sm., wh. cryst.; yellow on expos.—*Sol.* W.—*Uses & Dose:* As of codeine.

**Codeine Phosphate Merck** (71)

$C_{18}H_{21}NO_3 \cdot H_3PO_4 + 2H_2O$ .—Wh., cryst. powd.—*Sol.* 4 W.; sl. in A. at 15° C.; (2.25 W., 261 A., 1340 E., & 6620 C., at 25° C.—U. S. P.).—*Melt.* 235°C. (U. S. P.).—*Uses:* Mental dis., morphinism; hypoderm. hypnot. Best salt for hypoderm. use; more sol., less irrit.—*Dose*  $\frac{1}{6}$ –1 grain (0.01–0.06 Gm.) several t. p. d.—*Inf.*,  $\frac{1}{3}$ – $\frac{3}{4}$  grain (0.02–0.05 Gm.).—*Max. D.*  $1\frac{1}{2}$  grains (0.1 Gm.) single; 5 grains (0.3 Gm.) daily.

**Codeine Salicylate Merck** (250)

$C_{18}H_{21}NO_3 \cdot C_7H_5O_3$ .—Wh., cryst. powd.—*Sol.* 1 W.; sl. A.—*Uses:* Rheum. affect. & mening. pain.

**Codeine Sulphate Merck.**—Pure, cryst. or powder (76)

$(C_{18}H_{21}NO_3)_2 \cdot H_2SO_4 + 5H_2O$ .—Wh. cryst. or powd.—*Sol.* 40 W.—*Uses:* As of codeine.

*Note.*—The extreme purity of codeine sulphate Merck is at once apparent from its well-defined crystals & its beautiful downy appearance. The lightness of the crystals, too, insures ready solubility.

**Codeine (Pseudo-) Merck.**—Pure, cryst. (2500)

By-prod. prep. apocodeine.— $C_{18}H_{21}NO_3$ .—Colorl. prisms., or need.—*Sol.* A.; sl. in W.—*Melt.* 182° C.—Weaker than codeine.

**Codeine (Pseudo-) Hydrochloride Merck** (2350)

$C_{18}H_{21}NO_3 \cdot HCl + 1\frac{1}{2}H_2O$ .—Wh. need.—*Sol.* W.

*Codiol.*—see **Retinol**

**Coerulein Merck** (12)

(Alizarin Green).—Black paste.—*Sol.*, only in dil.  $H_2SO_4$ , w. dirty yellowish-brown color.—*Uses:* Techn., dyeing wool, cotton, & silk.

*Coffee.*—see **Caffea**

*Cognac Essence.*—see **Ethyl Pelargonate**

*Cognac Ether.*—see **Ethyl Cocoinate**

*Cognac Oil.*—see **Ethyl Oenanthate**

**Cola**

(Kola; Soudan Coffee; Guru).—Seeds of *Cola acuminata*, R. Brown. Sterculiaceae.—*Habit.*: West Africa; natur. in West Indies, India, Ceylon, &c.—*Etymol.*: “Cola” is the African name of the drug. Lat. “sterculia” fr. “stercus,” excrement, referring to the fetid odor of the flowers or fruit of certain species.—Oblate-ovate seeds abt. 1 in. (25 Min.) long, & somewh. flattened; testa brown or reddish-brown, often w. blackish spots, & brittle; embryo usually dark-colored, but when freshly cut yellow or whitish; cotyledons differ in size; nutmeg-like odor; taste bitterish & somewh. astring. when fresh, but mild & arom. when dried.—*Constit.*: Caffeine (2–2.4%), theobromine; kola-red; kolanin (glucoside); kolazyme (ferment); kolatannin,  $C_{20}H_{10}O_8$ ; glucose; gum; starch; sugar.—*Stim.*: Tonic; Nervine; Diuret.; Masticatory; Aphrodis.; Astring.—*Uses:* Heart failure, general debil., iner. muscul. exertion, dropsical condit., instead of caffeine or coffee, & as stimulat. in marching or traveling.—*Doses*: 15–60 grains (1–4 Gm.).—Alcoh. extr., 2–5 grains (0.12–0.3 Gm.).—Fld. extr., 15–60  $\mathfrak{m}$  (1–4 Cc.).—Tinct., 30–120  $\mathfrak{m}$  (2–8 Cc.).

**Colchicēin Merck** (5000)

(Acetotrimethylecolchicine Acid).—Decomp. prod. colchicine.— $C_{21}H_{23}NO_6 + \frac{1}{2}H_2O$ .—Sm., yellow need.—*Sol.* A., E., C.; sl. in W.—*Melt.* (hydrated) 149–151° C.—Antipodagrie & Antirheum.—*Dose*  $\frac{1}{120}$ – $\frac{1}{60}$  grain (0.0005–0.001 Gm.).

**Colchicine Merck.**—Highest Purity, cryst., or amorph. powd. (Cryst., 640; amorph., 2625)

(Methyl Ether of Colchicēin).—Alkaloid fr. *Colchicum autumnale*, L.— $C_{22}H_{25}NO_6$ .—Yellow, cryst. or amorph. powd.; v. bitter taste.—*Sol.* 22 W., 155 E., & 87 B. at 25° C. (U. S. P.); insol. benz. in.—*Melt. cryst.*, abt. 120°C., w. previous softening; *amorph.*, at 142°C., w. decomp., when dried; (142.5°C., U. S. P.).—Antipodagrie; Antirheum.; Antineural.—*Uses:* Rheum., gout, uremia, chron. sciatic, asthma, cereb. conges., & rheum. ischiagra.—*Dose*  $\frac{1}{120}$ – $\frac{1}{30}$  grain (0.0005–0.002 Gm.) 2 or 3 t. p. d.—*Max. D.*  $\frac{1}{30}$  grain (0.002 Gm.) single;  $\frac{1}{12}$  grain (0.005 Gm.) daily.—*Antid.*, stimulants, tannin, strong coffee, opiates, emetics (copper sulphate 3 grains [0.2 Gm.], & zinc sulphate 5 grains [0.3 Gm.] every 15 min.).—*Caution.* Very poisonous!

**Colchicine Salicylated Merck** (1225)

$C_{22}H_{25}NO_6 + C_7H_5O_3$ .—Yellow powd.—*Sol.* W., A., C.—*Uses:* Recom. in gout & rheum.—*Dose*  $\frac{1}{80}$  grain (0.00075 Gm.) every 4 hrs.

**Colchicine Tannate Merck** (1000)

38% colchicine.—Yellow powd.—*Sol.* A.—*Uses:* As of colchicine.—*Dose*  $\frac{1}{60}$ – $\frac{1}{15}$  grain (0.001–0.004 Gm.).

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eslerine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Colchicum Corm.—U. S. P.**

(Meadow Saffron; Autumn Crocus; Wild Saffron; Meadow Crocus).—Dried corm of *Colchicum autumnale*, L. Liliaceae. (*Colchiceae*).—*Habit.*: Central & Southern Europe; North Africa.—*Etymol.*: Fr. Grk. "kolchikon," poison plant, fr. "Colchis," an ancient province in Asia Minor, east of the Black Sea, where this poisonous plant flourished. Lat. "Autumnale," pertaining to autumn (when the plant blooms).—*Constit.*: Colchicine (0.4–0.5%),  $C_{22}H_{25}NO_6$ ; colchicein,  $C_{22}H_{25}NO_6 + \frac{1}{2}H_2O$ ; colchicoresin,  $C_{31}H_{40}N_2O_{15}$ ; betucolechicoresin,  $C_{34}H_{43}NO_{10}$ ; starch, &c.—*Diur.*; *Cath.*; *Antiarth.*; *Diaph.*; *Emet.*; *Alterat.*; *Solut.*; *Expector.*—*Uses*: Rheum; gout, dropsy, asthma, & ascites fr. hepatic obstruct.—*Doses*: 1–10 grains (0.06–0.6 Gm.) in gout, rheum, sciatica, &c., with an alkali.—*Acet. extr.*,  $\frac{1}{2}$ –2 grains (0.03–0.12 Gm.); *Max. D.* 3 grains (0.2 Gm.) single, 12 grains (0.75 Gm.) p. day.—*Fld. extr.*, 2–8  $\mathfrak{m}$  (0.12–0.5 Cc.).—*Tinct.*, 10–60  $\mathfrak{m}$  (0.6–4 Cc.).—*Antid.*, stomach siphon; emetics; tannin; demulcents; stimulants; opium.

**Colchicum Seed.—U. S. P.**

Seed of *Colchicum autumnale*, L. Liliaceae.—*Habit. & Etymol.*: As of colchicum corm.—*Constit.*: Colchicine (0.45%, U. S. P.),  $C_{22}H_{25}NO_6$ ; fixed oil (6–8%); gum; starch; tannin; colchicoresin; proteids.—*Cath.*; *Emet.*; *Diur.*; *Sedat.*—*Uses*: Gout, rheum, & dropsy; also source of colchicine.—*Doses*: 1–5 grains (0.06–0.3 Gm.).—*Acet. extr.*, 1–3 grains (0.06–0.2 Gm.); *Max. D.* 4 grains (0.25 Gm.) single, 15 grains (1 Gm.) daily.—*Alcoh. extr.*; dry.: *Max. D.*  $\frac{3}{4}$  grain (0.05 Gm.) single,  $1\frac{1}{2}$  grains (0.1 Gm.) daily; soft.: *Max. D.* 1 grain (0.06 Gm.) single, 2 grains (0.12 Gm.) daily.—*Fld. extr.*, 3–10  $\mathfrak{m}$  (0.2–0.6 Cc.).—*Tinct.*, 10–60  $\mathfrak{m}$  (0.6–4 Cc.).—*Antid.*, as of colchicum corm.

**Colcin Paper**

Wh. paper impregnated w. alcoh. solut. colcin (coloring matter fr. stems & lvs. of *Coleus verschaffelti*) & dried.—*Uses*: Sensitive indicator (alkalies = yellow; acids = red).

**Colic Root.—see Aletris; Dioscorea; Galanga**

**Collargol** (55)

(Argentum Credé; Colloidal Silver).—Soluble metallic silver.—*Antiseptic.*—*Uses*: Scpsis, lymphangitis, cellulitis, &c.—*Dose*  $\frac{1}{6}$ – $\frac{1}{3}$  grain (0.01–0.02 Gm.) 2 or 3 t. daily.—*Extern.*, mostly in 15% oint. ("Ungt. Credé"), 3 drams (12 Gm.) of this by inunction; also in 1:1000–5000 lotion.

**Collaurin**

Colloidal gold.—*Uses*: Cancer, syph., & scrof. affections.—*Dose*  $\frac{1}{2}$ –1 grain (0.03–0.06 Gm.).

**Collidine** (50)

(Betamethylethylpyridine; Betacollidine).—Fr. cinchonine by decomp.— $C_8H_{11}N$ , or,  $CH_3.C_5H_3.N(C_2H_5)$ .—Yellowish liq., readily becoming

brownish-red.—*Sol.* A, E, C.; sl. W.—*Sp. Gr.* 0.955 at 0° C.—*Boil.* 178.8° C.

**Collinsonia**

(Stone-root; Horse Balm; Rich-weed).—Root of *Collinsonia canadensis*, L. Labiate.—*Habit.*: North America, fr. Ontario to Florida, & west to Kansas.—*Etymol.*: Named for the English botanist, Peter Collinson (1693–1768).—*Constit.*: Resin; volat. oil, tannin, mucilage.—*Antispasmod.*; *Diuret.*; *Astring.*; *Anticatarrh.*; *Diaph.*—*Uses*: Dropsy, stone, leucorrh., cystitis, & o. inflam. condit. of genito-urin. organs.—*Doses*: *Extr.*, 4–10 grains (0.25–0.6 Gm.).—*Fld. extr.*, 20–60  $\mathfrak{m}$  (1.3–4 Cc.).

**Collinsonin (Eclectic)** (60)

Resin, extr. fr. *Collinsonia canadensis*, L. (Stone-root).—Choc.-colored powd.; peculiar odor; bitter, astring. taste.—*Sol.* A, E, C.—*Tonic*; *Astring.*; *Diaph.*; *Diuret.*—*Uses*: Catarrh of bladder, leucorr., gravel, & dropsy of Bright's dis.—*Dose* 2–4 grains (0.12–0.25 Gm.).

**Collodion Merck.—U. S. P.** (1)

Simple solut. nitrated cellulose (mixt. of tri-, & tetra-nitrocellulose) in E. & A.—Ahn. colorl., syrupy liq.—*Uses*: Coat. wounds & abrasions;—*Techn.*, in photography.

*Note.*—Collodion Merck being of the full U. S. P. strength, affords a good film, & is hence to be preferred both for general & special purposes.

**Collodion Merck.—Reagent.—4%** (2)

Colorl. or sl. yellowish, neutr., syr. liq.; exposed in thin layers, evaporates & leaves colorl. film.—*Tests*: (*Acids*) should not redden blue litmus paper.—(*Res.*) evap. 10 Gm. on W.-bath & dry res. at 100° C. should weigh 0.38–0.40 Gm.—*Uses*: Distinguishing bet. phenol & cresosote.

*Note.*—For complete tests see "Chemical Reagents; Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Collodion Cantharidal Merck.—U. S. P.** (3)

(Blistering, or Vesicating, Collodion).—Olive-green, syrupy liq.—100 parts represents the active constit. of 60 parts cantharides.—*Uses*: Blist. inst. of cantharides, severe neuralgic pains, pneum., & o. pain. affect.

**Collodion Cotton or Wool.—see Pyroxylin**

**Collodion, Croton-Oil.—N. F.**

10% croton oil.

**Collodion Flexile.—U. S. P.** (1)

Simple collodion, w. Canada balsam & castor oil.—Yellow, syrupy liq.—*Sol.* A, E.—*Uses*: Flexible appl. to cuts & injuries, erysipelas, & var. skin dis.

**Collodion, Iodized.—N. F.** (2)

Iodine (5%) & flex. collodion.—Dark-brown, syrupy liq.—*Uses*: Chilblains.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Collodion, Iodoform.**—*N. F.* (4)

Iodoform (5%) & flex. collodion.—Yellow, syr. liq.—*Sol. A., E.*—*Uses:* *Extern.*, rheum. orchitis, erysipelas, & o. inflam. condit., espec. of vener. character.

**Collodion, Paraform** (3)

Collodion w. 10% paraform (trioxymethylene).—*Uses:* As appl. in erythrasma, & pityriasis versicolor & rosacea. 5% paraform-collodion serves as caustic for soft, molluscoid nevi.

**Collodion Salicylated, Compound.**—*N. F.*

Mixt. salicyl. acid 11, extr. Indian Hemp 2, alcohol. 10, & flex. collod. 77.

**Collodion, Styptic.**—*U. S. P.*

Tannic acid, 20; alc., 5; ether, 25; collodion to make 100.—*Uses:* Bleeding wounds.

**Colloxylin.**—see **Pyroxylin****Colocynth.**—*U. S. P.*

(Bitter Apple; Bitter Cucumber; Bitter Gourd).—Peeled, dried fruit of *Citrullus Colocynthis*, Schrader. Cucurbitaceae.—*Habit.*: Mediterranean region; Asia; Africa.—*Etymol.*: "*Citrullus*," fr. Lat. "*citrus*," & Grk. "*kitron*," of Arabic origin, & denoting "orange," *i.e.*, the cut fruit has an orange-red color. "*Kolokynthis*" is the Grk. classic name of the plant.—*Constit.*: Colocynthin,  $C_{56}H_{81}O_{23}$  (Walz); colocynthitin; pectin; albuminoids.—*Purgative*; Emmen.; Hydragogue Cathart.; Hepat. Stim.; Diuret.—*Uses:* Obstn. constip. & dropsical condit.—Small doses bitter stomachic; large doses emetic; alcoholic tinct. also used as an insecticide.—*Doses*: 2–5 grains (0.12–0.3 Gm.) lax; 5–10 grains (0.3–0.6 Gm.) drastic purg; *Max. D.* 10 grains (0.6 Gm.) single, 15 grains (1 Gm.) p. d.—Comp. extr., 3–10 grains (0.2–0.6 Gm.).—*Fld.* extr., 5–10  $\mathfrak{m}$  (0.3–0.6 Cc.); *Max. D.* 15  $\mathfrak{m}$  (1 Cc.) single, 45  $\mathfrak{m}$  (3 Cc.) daily.—Hydro-alcohol. extr., 1–3 grains (0.06–0.2 Gm.).—*Antid.*, opium; stimulants; emetics; tannin.

**Colocynthin (Glucoside) Merck** (1000)

Fr. fruit of *Citrullus Colocynthis*, Schrader.— $C_{56}H_{81}O_{23}$  (Walz).—Yellow powd.—*Sol. W., A.*—Cathartic (not drastic & toxic, as the extr.).—*Uses:* Purgat.—*Dose*  $\frac{1}{6}$ – $\frac{1}{2}$  grain (0.01–0.03 Gm.).—*Inj.*  $\frac{1}{6}$  grain (0.01 Gm.). Rectal, 4–16  $\mathfrak{m}$  (0.25–1.0 Cc.) of a 4% solut. in equal pts. glycerin & alcohol.

**Colocynthin (Resinoid)** (50)

Fr. alcohol. tinct. colocynth, by evap.—Choc.-color, powd.—*Sol. A.*—Cathartic.—*Uses:* Purg.—*Dose*  $\frac{1}{4}$ –1 grain (0.015–0.06 Gm.).

**Colombo.**—see **Calumba****Colophony.**—see **Rosin****Coltsfoot.**—see **Tussilago****Columbin Merck** (1000)

Bitter prin. fr. root of *Jatropha zeylanica*, R. Br.— $C_{21}H_{22}O_7$ .—Yellow, cryst. powd.—*Sol. A., E., C.*;

v. sl. W.—*Melt.* 182° C.—Bitter tonic.—*Uses:* Nervous dyspep. & debil.—*Dose*  $\frac{1}{2}$ –1 grain (0.03–0.06 Gm.).

**Columbine.**—see **Aquilegia****Columbium.**—see **Niobium****Combretum.**—see **Kinkélibah****Comfrey.**—see **Symphytum****Commelina**

(Yerba del Pollo; Day-flower).—Whole plant *Commelina tuberosa*, L. Commelinaceae.—*Habit.*: Mexico.—*Etymol.*: Named for Caspar Commelyn, a Dutch botanist (1667–1731), & John Commelyn, uncle of Caspar (1629–1692).—*Hemostat.*—*Uses:* Metrorrhag., hemoptysis, hemorrhoids, leucorrhea, chlorosis, & gastric hemorrhage.—*Dose:* In injections as aqueous decoct. (1–8 dr. [4–30 Gm.] to 1 pint [abt. 500 Cc.]), or in form of extr. internally, 15–90 grains (1–6 Gm.) daily.

**Common Alder.**—see **Alnus Serrulata****Concha Preparata.**—see **Oyster Shell, Prepared****Conchicine.**—see **Quinidine****Condurangerin Merck** (850)

Glucoside fr. bark of *Gonolobus Condurango*, Triana.—Amorph., yellow powd.; arom. bitter taste.—*Sol. A.*; sl. E., W., C.—Stomachic; Astring., &c.—*Uses:* Gastric cancer, chron. dyspep., &c.—*Dose*  $\frac{1}{10}$ – $\frac{1}{4}$  grain (0.006–0.015 Gm.), 3 t. p. d., in sweet mixt.

**Condurango**

(Condurango; Eagle Vine; Mata-perro; Condor Vine).—Bark of *Gonolobus Condurango*, Triana (*Marsdenia Condurango*, Reichenbach). Asclepiadaceae.—*Habit.*: Ecuador; Peru.—*Etymol.*: "Condurango" is the South American name for the drug, and means eagle vine, or condor vine. "*Gonolobus*," fr. Grk. "*gonos*," angle, & "*lobos*," pod.—Quills or curved pieces; ash-gray or brownish-gray periderm, wrinkled & warty; slight odor & bitter, acrid taste; inner surface pale-brownish; granular, slightly fibrous fract.—*Constit.*: Alpha-condurangerin,  $C_{20}H_{32}O_6$ ; beta-condurangerin,  $C_{18}H_{28}O_7$ ; conduransterin,  $C_{30}H_{50}O_2$ ; also trace of an alkaloid resembling strychnine in action.—*Uses:* Cancer, syphilis, rheum., & gastric round ulcer, gastric carcinoma.—*Doses*: 5–40 grains (0.3–2.5 Gm.) in decoct.—*Fld. extr.*, 15–40  $\mathfrak{m}$  (1–2.5 Cc.).—*Alcohol. extr.*, 3–8 grains (0.2–0.5 Gm.).—*Tinct.*, 15–60  $\mathfrak{m}$  (1–4 Cc.).

**Conc Flower.**—see **Echinacea****Conessi.**—see **Holarrhena****Conessine Merck** (5000)

(Wrightine).—Alkaloid fr. barks of *Nerium antidysentericum*, L. (*Wrightia zeylanica*, R. Br.), & *Holarrhena africana*, A. De C.— $C_{24}H_{40}N_2$ .—Whitish cryst.; bitter taste.—*Sol. E., C., A.*;

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyanine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



sl. in W.—*Melt* 122° C.—*Astring*; *Anthelm*.—*Uses*: Dysent. & diar.—*Incomp.*, alkalies, tannic acid, &c.

**Conglutin Merck** (50)

Veget. casein fr. almonds, 18% nitrogen & 0.6% sulphur.—Wh. powd.—*Sol.*, weak alkali sol.—The 6% solut. is used in veter. med. in endovenous nutrition.

**Congo Red Merck** (8)

(Sodium Benzidindisazobinaphthylaminesulphonate).—Diazo-compound, fr. one molec. of benzidine w. two molecules of naphthionic acid.—(C<sub>6</sub>H<sub>4</sub>.N)(NC<sub>10</sub>H<sub>5</sub>.NaSO<sub>3</sub>.NH<sub>2</sub>)<sub>2</sub>.—Reddish-brown lumps or powd.—*Sol.* W.—*Uses*: Dyeing wool or un mordanted cotton red fr. neutral or alkaline bath; chiefly as indicator, in titrating aniline, & as reagent for free acids.—Alkalies = red; acids = blue.

**Congo Red Paper Merck**

(Riegel's Paper; Herzberg's Paper).—Wh. paper, charged w. Congo red.—*Uses*: Test-paper for free acids (blue color), & for alkalies (red color); also for detecting free HCl in gastric juice.

**Conhydrine Merck** (500)

(Oxyconiine).—Alkaloid fr. seeds *Conium maculatum*, L.—C<sub>8</sub>H<sub>17</sub>NO, or, NH<sub>2</sub>.(CH<sub>2</sub>)<sub>2</sub>.CH(OH).CH<sub>2</sub>.CH(C<sub>3</sub>H<sub>7</sub>).—Colorl. cryst.—*Sol.* A., E., C.; sl. in W.—*Melt.* 118–121° C.—*Boil.* 220–225° C.—*Nar.*; *Anod.*; *Antispas.*; *Alter.*; *Antisep.*—*Dose*. Statements wanting; lethal dose for rabbits, per kilo of body weight, 0.257 Gm.—*Caut.* Poison!

**Conhydrine (Pseudo-) Merck** (2000)

Alkaloid fr. seeds of *Conium maculatum*, L.—C<sub>8</sub>H<sub>17</sub>NO.—Colorl. cryst.—*Sol.* W., A., E., B., C.—*Melt.* 100° C.—*Boil.* 230–232° C.—Less toxic than conhydrine.

*Conicine*.—see **Coniine**

**Coniine Merck.—Highest Purity, limpid** (500)

(Conicine; Cicutine; Dextroalalphapropylpiperidine).—Alkaloid fr. *Conium maculatum*, L.—C<sub>8</sub>H<sub>17</sub>N, or, NH<sub>2</sub>.(CH<sub>2</sub>)<sub>4</sub>.CH[(CH<sub>2</sub>)<sub>2</sub>.CH<sub>3</sub>].—Colorl., oily liq.; mousy odor; darkens by age & expos. to light.—*Sol.* A., E., C., B., amyl A., acetone.—*Boil.* 166° C.—*Uses*: Paral. poison; antidote to strychnine & tetanus; used as hydrobromide.—*Antid.*, emetics, zinc sulphate, or mustard, stomach siphon, tannin, atropine, strychnine, picrotoxin & castor oil, caffeine, & o. stim., vinegar enemas, ice.—Lethal dose for rabbits per kilo of body weight 0.037 Gm.—*Incomp.*, albumin; salts of aluminum, copper, iron, manganese, & zinc.—*Caut.* Very poisonous!

**do. Merck.—Pure** (350)

Mixt. of coniine bases obtained betw. 165–175° C.—Yellowish liq.

*Coniine, Animal*.—see **Pentamethylenediamine**

**Coniine Hydrobromide Merck.—Cryst. or powder** (285)

C<sub>8</sub>H<sub>17</sub>N.HBr.—Wh. need.—*Sol.* 2 W., 2 A., C.—*Melt.* 210–214° C.—*Antispas.*, *Antineural.*, &c.—*Uses*: Tetanus, cardiac asthma, sciatic, & whoop-cough; large doses have been given in tetanus fr. injury.—*Doses* 1/60–1/30 grain (0.001–0.002 Gm.) 3–5 t. p. d.; children, 1/600–1/40 grain (0.0001–0.0015 Gm.) 2–4 t. p. d.—*Inj.*, 1/20–1/16 grain (0.003–0.004 Gm.).—*Max. D.* 1/6 grain (0.01 Gm.), single (in traumatic tetanus).—*Antid.* & *Incomp.*: As of coniine.

**Coniine Hydrochloride Merck** (350)

(Coniine Muriate).—C<sub>8</sub>H<sub>17</sub>N.HCl.—Wh. cryst.—*Sol.* W., A.—*Melt.* 210–212° C.—*Uses* & *Doses*: As of coniine hydrobromide & alkaloid.

**Conium.—U. S. P.**

(Hemlock; Poison Hemlock; Spotted Hemlock; Poison Parsley; Spotted Cowbane).—Full-grown, but unripe, carefully dried fruit of *Conium maculatum*, L. Umbelliferae.—*Habit.*: Europe; Asia; natur. in U. S.—*Etymol.*: Grk. "konion," fr. "konesthai," to whirl round, to become dizzy (fr. "konos," a top or cone), referring to the effect of the plant. Lat. "maculatum," spotted, fr. "macula," a spot, i.e., the stem has brownish-purple spots or dots.—*Constit.*: Coniine, C<sub>8</sub>H<sub>17</sub>N; conhydrine, C<sub>8</sub>H<sub>17</sub>NO; pseudoconhydrine, C<sub>8</sub>H<sub>17</sub>NO; methylconiine, C<sub>8</sub>H<sub>16</sub>(CH<sub>3</sub>)N; volat. oil; fixed oil; conic (conic) acid.—*Sedat.*; *Narcot.*; *Anodyne*; *Soporific*; *Antispas.*; *Anaphrodisiac*.—*Uses*: *Intern.*, in maniacal excitem., whoop-cough, & chorea.—*Extern.*, in analgesic cataplasms & oint. in neural, rectal diseases, & pruritus.—*Techn.*, in manuf. of coniine, &c.—*Doses*: 1–5 grains (0.06–0.3 Gm.).—*Aceto-alcoh. extr.*, 1/2–2 grains (0.03–0.12 Gm.); *Max. D.* 2 grains (0.12 Gm.) single, 10 grains (0.6 Gm.) daily.—*Fld. extr.*, 3–5 m (0.2–0.3 Cc.), cautiously increased to 10 m (0.6 Cc.) or more.—*Tinct.*, 5–15 m (0.3–1 Cc.).—*Antid.*, tannin; astringents; strychnine; picrotoxin; emetics; brandy; artif. respiration; warmth; coffee.

**Conium Herb**

*Synonyms, Habit., Etymol., & Constit.*: As of conium.—*Sedat.*; *Narcot.*; *Anodyne*; *Soporific*; *Antispas.*; *Anaphrodisiac*.—*Uses*: *Intern.*, maniacal excitem., whoop-cough, & chorea.—*Extern.*, in neural, rectal diseases, & pruritus (in form of oint.), & in eye lotions.—*Techn.*, in manuf. of coniine.—*Doses*: 1–5 grains (0.06–0.3 Gm.) in powd.—*Alcoh. extr.*, 3–10 grains (0.2–0.6 Gm.).—*Extr.* (fr. inspiss. juice), 1/2–1 grain (0.03–0.06 Gm.); *Max. D.* 3–10 grains (0.2–0.6 Gm.).—*Fld. extr.*, 2–5 m (0.12–0.3 Cc.).—*Tinct.*, 5–15 m (0.3–1 Cc.).—*Antid.*, as of conium.

**Conium Juice Merck** (3)

(Hemlock Juice).—Fr. fresh lvs. *Conium maculatum*, L.; preserv. w. alc.—*Antispas.*; *Sed.*—

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Uses:* Chorea, whoop.-cough, & to quiet maniac. patients.—*Dose* 10-30 m (0.6-2 Gm.).—*Antid.*, emetics, stomach siphon, tannin, followed by cathartic, brandy, artif. respir., warmth, &c.—*Caut.* Poison!

### Contrayerva

Rhizome of *Dorstenia brasiliensis*, Lam., & D. *Contrayerva*, L. Moraceae.—*Habit.*: Brazil.—*Etymol.*: "Contrayerva" from Lat. "contra," against, & Spanish "yerva," herb, i.e., the plant is used as an antidote to snake poison. Plant named for T. Dorsten, a German botanist (d. 1552).—Rhizome forms knotty, woolly pieces, 2-3 in. long; reddish-brown extern., pale intern.; acrid, bitter taste; peculiar, arom. odor.—*Constit.*: Resin; volat. oil; bitter principle.—*Stim.*; Diaphor.; used also in snake bites.—*Dose* 30 grains (2 Gm.) in powd., decoct., or tinct.

### Convallamarin Merck (428)

Glucoside fr. *Convallaria majalis*, L.— $C_{23}H_{44}O_{12}$ .—Yellowish, amorph., bitter powd.—*Sol.* W.; freely A.; insol. C., E.—Cardiac Stim., Diuret.—*Uses:* Heart dis., edema, &c.—*Dose*  $\frac{3}{4}$  grain (0.05 Gm.) 6 t. p. d.—*Inj.*  $\frac{1}{12}$ - $\frac{1}{3}$  grain (0.005-0.02 Gm.) several t. p. d.—*Max. D.* 1 grain (0.06 Gm.), single; 5 grains (0.3 Gm.), p. day.—*Antid.*, emetics, stomach siphon, wine, camphor.

### Convallaria.—U. S. P.

(Lily-of-the-Valley; May Lily; Park Lily; May Blossom).—Dried rhizome & roots of *Convallaria "majalis"*, L. Liliaceae.—*Habit.*: U. S.; Europe; Northern Asia; cultivated in gardens.—*Etymol.*: Fr. Lat. "convallis," valley, & Grk. "leirion," lily. "Majalis" fr. Lat. "majus," May, i.e., the time of year when the flower blooms.—Cylindrical pieces, wrinkled, whitish, abt. 3 Mm. thick; fracture somewh. fibrous, white; peculiar pleasant odor; sweetish, bitter, somewh. acrid taste.—*Constit.*: Convallamarin,  $C_{23}H_{44}O_{12}$ ; convallarin,  $C_{34}H_{62}O_{11}$ ; resin; volat. oil.—Cardiac tonic, like digitalis; Diuret.—*Uses:* Functional & organic affect. of heart, & in cardiac dropsy, & renal affect.—*Doses:* 1-10 grains (0.06-0.6 Gm.).—Alcoh. extr., 1-4 grains (0.06-0.25 Gm.).—Fld. extr., 2-8 m (0.12-0.5 Gm.).—Tinct., 5-30 m (0.3-2 Gm.).—*Antid.*, as of digitalis.

### Convallaria Flowers & Leaves

*Synonyms, Source, Habit., & Etymol.*: As of preceding.—*Constit.*: Volat. oil; convallarin,  $C_{34}H_{62}O_{11}$ ; convallamarin,  $C_{23}H_{44}O_{12}$ .—*Uses:* Diuret.; Cardiac Tonic; Emetic; Cathart.—*Doses:* 5-15 grains (0.3-1 Gm.), best in infus.—Fld. extr., 5-10 m (0.3-0.6 Gm.).—Tinct., 5-30 m (0.3-2 Gm.).

### Convallarin Merck (342)

Glucoside fr. *Convallaria majalis*, L.— $C_{34}H_{62}O_{11}$ .—Yellowish-wh., amorph. powd.; acrid taste.—*Sol.* A.; insol. W.—Lax., no cardiac effect.—*Uses:* Constip.—*Dose* 2-4 grains (0.12-0.25 Gm.).

### Convolvulin Merck (25)

Fr. tubers *Ipomoea Jalapa*, Nuttall.— $C_{31}H_{50}O_{16}$ .—Yellowish, amorph. masses, or wh. powd.—

*Sol.* A., C.; partly W.—*Melt.* 150° C.—Drastic Cath.—*Dose* 1-3 grains (0.06-0.2 Gm.), in pills.

### Convolvulus

(Small Bindweed; Bear-bind; Corn Lily).—Flowers & lvs. of *Convolvulus arvensis*, L. Convolvulaceae.—*Habit.*: Europe; Asia.—*Etymol.*: Lat. "convolvere," to bind together, to entwine, i.e., referring to the stem's twining habit. Lat. "arvensis," pertaining to fields.—*Constit.*: Lvs. contain bitter principle & resin.—*Purg.*; Vulnerary.

*Convolvulus Scammonia.*—see Scammony Root  
*Convolvulus Scoparius.*—see Rhodium

### Conyza

(Plowman's Spikenard; Cinnamon-root).—Whole plant *Conyza (Inula) squarrosa*, L. Compositae.—*Habit.*: Europe.—*Etymol.*: Grk. "konyza," a fly, i.e., the plant, because of its stickiness, may be used for catching flies.—Emmen.; Diuret.; Diaphor.; Insecticide (when charred).

### Copaiba.—U. S. P.

(Balsam Copaiba; Balsam Capivi; Jesuits' Balsam).—Olcoresin fr. one or more South American spec. of *Copaiba*, Leguminosae. (*Copaifera Langsdorffii*, Desf., & other sp. of *Copaifera*, *Casalpinia*aceae).—*Habit.*: Brazil, Venezuela, Colombia, Amazon valley, & banks of Orinoco.—*Etymol.*: Fr. Brazilian "cupaiba," the native name of the tree & its products.—Sp. Gr. 0.940-0.990 at 15° C.; (0.95-0.995 at 25° C.—U. S. P.).—Transparent, visc., light-yellow to brownish-yellow liq.; pecul. odor; bitter, acrid, nauseous taste.—*Sol.* E., oils, C., B.,  $CS_2$ , absol. A., & str. alk. solut.—*Constit.*: Ethereal oil; resin;  $\beta$ -metacopaivic acid,  $C_{11}H_{16}O_2$ , or,  $C_{16}H_{24}O_3$ ;  $\alpha$ -metacopaivic acid,  $C_{22}H_{34}O_4$  (in Maracaiibo balsam); copaivic acid,  $C_{10}H_{16}O_2$ ; oxycopaivic acid,  $C_{20}H_{28}O_3$  (in Para balsam); illurinic acid,  $C_{20}H_{28}O_3$  (in Maracaiibo balsam); paracopaivic acid,  $C_{20}H_{28}O_3$  (in Para balsam); homoparacopaivic acid,  $C_{31}H_{50}O_5$  (?).—*Stim.*; Lax.; Diuret.; Antisep.—*Uses:* Intern., gonorr., cyst., chron. dysent., leucorrh., diarrh., hemorrhoids, chron. bronch.—*Extern.*, locally, indol. ulc. & chilbl.—*Techn.*, in varnishes, & brightening pictures.—*Dose* 10-60 grains (0.6-2 Gm.) 2 to 4 t. p. d. in emuls. w. alk.; in mass w. magnesia in capsules or pills. Daily, 60-120 grains (4-8 Gm.).

### Copaiba Mass

(Solidified Copaiba; Pill Copaiba).—*Constit.*: Balsam copaiba 94; magnesia 6; water suffic.—*Diur.*; *Stim.*; *Antisep.*—*Uses:* Gonorr., leucorr., & dis. of muc. membr.—*Dose* 10-60 grains (0.6-2 Gm.).

### Copal

(Resin Copal; Gum Copal; Animé [soft copal]; Kaurie [or Cowrie]).—A resin found as a fossil in Zanzibar, or exuding fr. various sp. of *Trachylobium*, *Hymenaea Courbaril*, L., &c. *Casalpinia*aceae. Two varieties (hard copals, & soft

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



copal known.—*Habit*: Zanzibar, Mozambique; also S. America, Australia, Manila, & W. Indies.—*Etymol.*: Fr. Mexican "copalli," resins.—Yellowish to yellowish-brown pieces of var. size; conch. fract.; glossy, odorl., & taste. Hard copals are alm. insol. in usual solvents; soft copals partly solub. in A, C, & glac. acetic acid; both copals are solub. in oil turpentine & linseed oil, after having been fused.—*Constit.*: Zanzibar copal contains 80% trachylic acid, 4% iso-trachylic acid, 6% resene, & ethereal oil. Kaurie copal contains dammarie acid & a resin, dammaran.—*Uses*: Techn., in varnishes & enamels; also as substitute for amber.

*Copernicia*.—see **Carnauba**

**Copper Merck.**—Granulated, sheet, filings, & turnings (5)

*Etymol.*: Accord. to Pliny fr. "aes cuprium," i.e. Cyprian ore, because first known in Cyprus.—Metal.—Cu.—Reddish, ductile, mall., hard metal.—Sp. Gr., about 8.94.—*Melt.*, abt. 1065° C.—*Boil.*, abt. 2100° C.—*Uses*: Techn.

do. Merck.—Reduced, pure powder (7)

**Copper Merck.**—Reagent.—By Electrolysis (3)

Cu.—*Tests*: (*Foreign Met.*) a: diss. 10 Gm. in 60 Ce. HNO<sub>3</sub> (sp. gr. 1.3); evap. to dryness on W.-bath—res. compl. & clearly solub. in 50 Ce. H<sub>2</sub>O + 10 Ce. HNO<sub>3</sub> (sp. gr. 1.3) (absence of Sb & Sn). To solut. add 15 Ce. conc. H<sub>2</sub>SO<sub>4</sub> (sp. gr. 1.84); evap. on W.-bath, & heat res. on sand-bath till H<sub>2</sub>SO<sub>4</sub> vapors begin to evolve; take up res. w. 100 Ce. H<sub>2</sub>O—no insol. res. (abs. of Pb). To clear solut. add 5 Ce. HCl—no turb. (absence Ag). Now add 150 Ce. NH<sub>4</sub>OH; let stand 3–4 hrs. at 50–60° C.; filter; wash filter w. ammoniacal W. till free fr. Cu, & incin. w. any ppt. it may contain, & ignite—wt. of res. not more than 0.001 Gm. (Fe & Bi); b: diss. 10 Gm. in 60 Ce. HNO<sub>3</sub> (sp. gr. 1.3), add 15 Ce. conc. H<sub>2</sub>SO<sub>4</sub> (sp. gr. 1.84); evap. on W.-bath; heat res. on sand-bath till H<sub>2</sub>SO<sub>4</sub> vapors begin to evolve; diss. res. in 300 Ce. H<sub>2</sub>O, and pass H<sub>2</sub>S gas into solut. at 70° C. until all Cu pptd.; filter; concentrate filtrate; expel H<sub>2</sub>SO<sub>4</sub> on sand-bath & ignite—wt. of res. not more than 0.002 Gm.—(As) diss. 10 Gm. in 60 Ce. HNO<sub>3</sub> (sp. gr. 1.3); add 15 Ce. conc. H<sub>2</sub>SO<sub>4</sub> (sp. gr. 1.84); evap. on W.-bath & heat res. on sand-bath till H<sub>2</sub>SO<sub>4</sub> vapors evolved; when cold diss. res. in 100 Ce. H<sub>2</sub>O, & introduce solut. in sm. quant. at a time into a Marsh appar. started w. 50 Gm. As-free gran. Zn & dil. (1:5) H<sub>2</sub>SO<sub>4</sub>—no deposit in reduct. tube within 2 hrs.—*Uses*: Detect. Fe, Hg, & As; determ. N; ultimate organ. analysis; elaidin test.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Copper Abietinate**

Cu(C<sub>19</sub>H<sub>27</sub>O<sub>2</sub>)<sub>2</sub>(?).—Green scales.—*Sol.*, oils w. fine green color.—*Uses*: Anthelmintic for dogs.—*Techn.*, for impregn. wood as a preservative.

**Copper Acetate (Basic) Merck.**—Refined, powder (2)

(Copper Subacetate, Green Verdigris).—CuO—Cu(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub>+6H<sub>2</sub>O.—Greenish-blue, very fine powd.; metal. taste.—*Sol.* W., dil. A; sl. A.—*Uses*: Chiefly techn. in manuf. Schweinfurth green & o. pigments; dyeing & printing fabrics; prepar. gilder's wax in fire gilding; as water- or oil-color pigment.

do. Merck.—Technical, in globules (1)

Cu(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub>.CuO; with var. quant. of CuCO<sub>3</sub>+Cu<sub>2</sub>O.—Faint, light-green balls, consist. of conglomerated cryst. powd.; disagr., metal. taste.—*Sol.* W., A.—*Uses*: Techn. (dyes).

do. Merck.—Blue (2)

(Blue Verdigris).—Contains chiefly Cu(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub>.CuO+6H<sub>2</sub>O, besides small quant. of other copper acetates.—*Uses*: Techn., in oil- & water-colors, & manuf. o. copper pigments for printing fabrics.

**Copper Acetate (Normal) Merck.**—Pure, cryst. (1)

(Crystallized Verdigris).—Cu(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub>+H<sub>2</sub>O.—Bluish-green cryst.; metal. taste; acetic-acid odor.—*Melt.* 240° C., w. decomp.—*Sol.* W., A.—Astring., Alter., &c.—*Uses*: Intern., scrofula, certain skin dis., epilepsy, chlorosis, &c.—Extern., gonorr., conjunctiv., &c.—*Techn.*, as mordant, & in enameling miniatures.—*Dose* 1/10–1/2 grain (0.006–0.03 Gm.).—*Max. D.* 3 grains (0.2 Gm.) single; 6 grains (0.36 Gm.) p. d.—*Appl.*, in 1/4–1% solut.—*Antid.*, for all copper salts: encourage vomiting; stomach siphon, then white of egg freely, charcoal, iron filings, magnesia, pure potass. ferrocyanide; milk & fatty acids must be avoided.—*Caut.* Keep well stoppered. Poison!

**Copper Acetoarsenite** (2)

(Schweinfurth, Imperial, or Paris, Green).—By boil. verdigris w. As<sub>2</sub>O<sub>3</sub>.—3CuOAs<sub>2</sub>O<sub>3</sub>.Cu(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub>.—Emerald-green powd.—*Uses*: Techn.

**Copper Albuminate Merck** (6)

Green scales.—*Sol.*, in dil. acids & alkalis.

*Copper Alum.*—see **Copper Aluminated**

**Copper Aluminated Merck.**—Powd. or plates (1)

(Copper Alum; Eye Stone).—Copper & aluminum sulphates, & potassium nitrate.—Green powd. or plates.—*Sol.* W.—*Uses*: Mild caustic in ophthalmia.

do. Merck.—Sticks (2)

Bluish-green pencils.—*Sol.* W.—*Uses*: Check granulations; mild caustic.

**Copper Amalgam Merck** (10)

Hard, brownish-red, metal. gran.; soft & plastic on warming.—*Uses*: For filling teeth.

**Copper Arsenate Merck** (3)

Fr. ammonium arsenate, w. cupric sulphate.—Comp. variable.—Blue powd.—*Sol.*, in acids.—Alter.—*Uses*: Syph.—*Dose* 1/30–1/8 grain (0.002–0.005 Gm.).

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Copper Arsenite Merck** (3)

(Cupric Orthoarsenite).— $\text{Cu}_3\text{As}_2\text{O}_6$ , or,  $\text{Cu}_3(\text{AsO}_3)_2$ .—Yellowish-green powd.—*Sol.*, alkali; *sl. W.*—Intestinal Antisept., Antispasmod., & Sed.—*Uses*: Cholera morbus, cholera infantum, enteric fever, Asiatic cholera, dysent., whoop.-cough, dysmenor., &c.—*Techn.*, as base for various green copper pigments.—*Doses*: Ordinarily  $\frac{1}{100}$ – $\frac{1}{25}$  grain (0.0006–0.0025 Gm.); in anemia & chlorosis,  $\frac{1}{50}$ – $\frac{1}{25}$  grain (0.0012–0.0025 Gm.) 3 t. p. d.; in cholera very small, frequent doses are recom., e.g., at first every 10 minutes 1 teasp. of a mixt. cont.  $\frac{1}{100}$  grain to 4 fl. oz. (0.0006 Gm.: 120 Ce.), then 1 teasp. every hr.—*Max. D.* 1 grain (0.06 Gm.) single or daily.

**Copper Benzoate Merck** (10)

(Cupric Benzoate).— $\text{Cu}(\text{C}_6\text{H}_5\text{CO}_2)_2 + 2\text{H}_2\text{O}$ .—Light-blue cryst. or powd.—*Insol. W.*, & A.

**Copper Bichloride**.—see **Copper Chloride, Cupric****Copper Bichromate**.—see **Copper Dichromate****Copper Borate Merck** (2)

(Cupric Borate).—Bluish-green, cryst. powd.—*Sol.*, dil. acids.—*Uses*: Techn., oil pigment, & painting on porcelain.

**Copper Bromide Merck** (10)

(Cupric Bromide).— $\text{CuBr}_2$ .—Grayish-black, cryst. powd., resembl. graphite.—*Sol. W.*, A.

**Copper Butyrate Merck** (25)

(Cupric Butyrate).— $\text{Cu}(\text{C}_4\text{H}_7\text{O}_2)_2 + 2\text{H}_2\text{O}$ .—Monocl., green cryst.—*Sol. A.*; *sl. W.*—*Uses*: Reag. for essential oils.

**Copper Carbonate Blue Merck** (1)

(Sesquicupric Carbonate; Artificial Blue Malachite; Mountain, Verditer, or Bremen, Blue).—Approx.  $3\text{CuO} \cdot 2\text{CO}_2 + \text{H}_2\text{O}$ .—Blue powd.—*Uses*: Pigment, pyrotechn., & paper color.

**Copper Carbonate Green Merck**.—Highest Purity (2)

(Copper Subcarbonate; Cupric Carbonate; Artificial Malachite; Dicupric Carbonate).— $\text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$ .—Green, amorph. powd.—*Sol.*, acids; *insol. W.*—*Uses*: Intern., as antid. to phosphorus.—*Extern.*, astring. (in 1:10 oint.), & as caustic instead of copper sulphate.

**do. Merck**.—Pure (1)

(Artificial Malachite; Mineral, Bremen, Brunswick, or Verditer, Green).—Green powd.—*Uses*: Pyrotechny, & pigment in paper manuf.; also for prep. Soldani's reagent.

**Copper Chlorate Merck** (9)

(Cupric Chlorate).— $\text{Cu}(\text{ClO}_3)_2 + 6\text{H}_2\text{O}$ .—Bluish-green, deliq. cryst.—*Sol. W.*, A.—*Uses*: Mordant in dyeing & printing fabrics.—*Caut.* Keep dry.

**Copper Chloride Merck**.—Cupric.—Pure, cryst., free from Arsenic (5)

(Copper Bi-, or Di-, Chloride).— $\text{CuCl}_2$ .—Fused, liver-colored, anhyd. mass.—*Sol. W.*, A.

**Copper Chloride Merck**.—Cupric.—Pure, cryst. (1)

$\text{CuCl}_2 + 2\text{H}_2\text{O}$ .—Green, deliq., cryst. mass.—*Sol. W.*, A.—*Caut.* Keep well stoppered.

**do. Merck**.—Commercial (1)

*Uses*: Mordant in dyeing & printing fabrics, manuf. sympathetic ink, fast black (melanin), detecting gold on gilt articles, manuf. aniline dyes, oxidizer, liberating chlorine, & disinf. in murrain in cattle.

**Copper Chloride Merck**.—Cupric.—Reagent (5)

$\text{CuCl}_2 + 2\text{H}_2\text{O}$ .—Green, hygrosc. cryst.—*Sol.*, eas. W., A., E.—*Tests*: (*Impur. Insol. in A.*) 5 Gm. + 5 Cc.  $\text{H}_2\text{O}$  + 5 Cc. 90% A.—no turb.—( $\text{H}_2\text{SO}_4$ ) 1 Gm. + 20 Cc.  $\text{H}_2\text{O}$  + 1 Cc. HCl + solut.  $\text{BaCl}_2$ —no turb. within 5 min.—(*Salts of Alkali Met.*) 3 Gm. + 100 Cc.  $\text{H}_2\text{O}$  + 5 Cc. HCl (sp. gr. 1.124); pass in  $\text{H}_2\text{S}$  gas till all Cu pptd.; filter; evap. filtrate to dryness & ignite—wt. of res. not more than 0.002 Gm.—(*Fe*) as under copper & ammon. chloride.—(*As*) 1 Gm. + 20 Cc.  $\text{H}_2\text{O}$ ; introduce in sm. quant. into Marsh appar. started w. 20 Gm. As-free Zn & dil. (1:5)  $\text{H}_2\text{SO}_4$ —no deposit in reduct. tube within 1 hr.—*Uses*: Determ. C in Fe.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Copper Chloride Merck**.—Cuprous (2)

(Copper Monochloride).— $\text{Cu}_2\text{Cl}_2$ .—Greenish-wh. powd.—*Sol. HCl*; *insol. W.*, A.—*Uses*: Gas anal., for detect. varying temperatures due to friction of various parts of machinery; determination of arsine & stibine, &c.

**Copper Chloride Merck**.—Cuprous.—Reagent (6)

$\text{Cu}_2\text{Cl}_2$ .—Wh., cryst. powd.—*Sol.*,  $\text{NH}_3$ , conc. HCl; *insol. W.*—*Uses*: Gas analysis, absorb. CO, arsine, stibine, & some gaseous hydrocarbons.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Copper Chromate Merck**.—Pure (2)

(Basic Cupric Chromate).— $\text{CuCrO}_4 \cdot 2\text{CuO} + 2\text{H}_2\text{O}$ .—Light, choc.-brown powd.—*Sol.*, solut. chromic acid; *insol. W.*—*Uses*: Dyeing.

**do. Merck**.—Solution (1)**Copper Citrate Merck** (5)

(Cupric Citrate).— $\text{Cu}_2\text{C}_6\text{H}_4\text{O}_7 + 2\frac{1}{2}\text{H}_2\text{O}$ .—Green powd.—*Sol.*, *sl. W.*—*Uses*: In trachoma in 5–10% oint. (w. starch glycerite).

**Copper Cyanide**.—Cupric (4)

$\text{Cu}(\text{CN})_2$ .—Red powd.

**Copper Cyanide Merck**.—Cupro-cupric (3)

Fr. cupric cyanide by boil. with W.— $\text{Cu}_3(\text{CN})_4 + 5\text{H}_2\text{O}$ , or,  $\text{Cu}(\text{CN})_2 + \text{Cu}_2(\text{CN})_2 + 5\text{H}_2\text{O}$ .—Green powd.—*Sol.*, in solut. KCN; *insol. W.*

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 4=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



- Copper Cyanide Merck.**—Cuprous (4)  
Fr. an acid  $\text{HCl}$  solut. cuprous chloride, by potass. cyanide  $\text{—Cu}_2\text{CN}_2$ .—Light, wh., amorph. powd.—*Sol.*, amm. water & solut.  $\text{KCN}$ .
- Copper Dichloride.**—see **Copper Chloride, Cupric**
- Copper Dichromate Merck** (6)  
(Cupric Behromate).— $\text{CuCr}_2\text{O}_7 + 2\text{H}_2\text{O}$ .—Brown, deliq. cryst.—*Sol.*  $\text{W}$ ., & chromic-acid solut.—*Caution*. Keep well stoppered.
- Copper Ferrocyanide Merck** (4)  
(Cupric Ferrocyanide).— $\text{Cu}_2\text{Fe}(\text{CN})_6$ .—Brownish-red powd.—*Sol.*, solut.  $\text{KCN}$ ; insol.  $\text{W}$ .
- Copper Fluoride Merck** (5)  
(Cupric Fluoride).— $\text{CuF}_2 + 2\text{H}_2\text{O}$ .—Blue cryst.—*Sol.*, sl. in  $\text{W}$ .
- Copper Formate Merck** (5)  
(Cupric Formate).— $\text{Cu}(\text{CHO}_2)_2$ .—Blue cryst.—*Sol.*  $\text{W}$ .
- Copper Hydroxide Merck.**—Pure, powder (3)  
(Cupric Hydroxide; Hydrated Copper Oxide; Copper Hydroxide).— $\text{Cu}(\text{OH})_2$ .—Blue or black powd.—*Sol.*, ammonia.—*Uses*: Chiefly techn.
- Copper Hyposulphite.**—see **Copper Thiosulphate**
- Copper Iodide Merck** (8)  
(Cuprous Iodide).— $\text{Cu}_2\text{I}_2$ .—Light brown, cryst. powd.—*Sol.*, dil. acids, alcoh. solut. iodine.—*Uses*: With equal parts  $\text{HgI}_2$  &  $\text{W}$ . as a means of detecting rise of temperature.
- Copper Lactate Merck** (10)  
(Cupric Lactate).— $\text{Cu}(\text{C}_3\text{H}_5\text{O}_3)_2 + 2\text{H}_2\text{O}$ .—Greenish-blue cryst.—*Sol.*, sl.  $\text{W}$ .,  $\text{A}$ .
- Copper Monochloride.**—see **Copper Chloride, Cuprous**
- Copper Monoxide.**—see **Copper Oxide, Black**
- Copper Nitrate Merck.**—Highest Purity, cryst. (1)  
(Cupric Nitrate; Normal Copper Nitrate).— $\text{Cu}(\text{NO}_3)_2 + 3\text{H}_2\text{O}$ .—Blue, prism., deliq. cryst.—*Sol.*  $\text{W}$ .,  $\text{A}$ .—Astring.; Alter.—*Uses*: Syphilis, gonorr., ulcers, &c.—*Dose*  $\frac{1}{12}$ – $\frac{1}{6}$  grain (0.005–0.01 Gm.).—*Max. D.*  $\frac{1}{2}$  grain (0.03 Gm.).—*Appl.* 0.5–1.5% lotions, or 0.2–0.5% injections.
- do. Merck.—Pure, cryst. (1)
- do. Merck.—Technical, cryst. (1)  
*Uses*: Preparation of light-sensitive papers for reproductive processes.
- Copper Nitrite Merck** (40)  
(Cupric Nitrite).—Variab. comp.—Fine, green powd.; decomp. v. easily.—*Sol.*  $\text{W}$ .,  $\text{A}$ .
- Copper Nitroferrocyanide.**—see **Copper Nitroprusside**
- Copper Nitroprusside Merck** (9)  
(Cupric Nitroprussiate, or Nitroferrocyanide).— $\text{Cu}_2\text{Fe}_2(\text{NO})_2(\text{CN})_{10}$ .—Grayish-green, gran. powd., bec. gray on exposure to light.—Insol.  $\text{W}$ .

- Copper Oleate Merck** (3)  
(Cupric Oleate).—10% copper oxide diss. in oleic acid  $\text{—Cu}_2\text{C}_{18}\text{H}_{33}\text{O}_2$ , w. excess of oleic acid. Greenish-blue mass.—*Sol.*  $\text{E}$ .—Antiseptic.—*Uses*: 10–20% oint. (lard or lanum), in indol. ulc. & unhealthy granulations.
- Copper Orthoarsenite.**—see **Copper Arsenite**
- Copper Oxalate Merck** (2)  
(Cupric Oxalate).— $\text{CuC}_2\text{O}_4$ .—Bluish-green powd.—*Sol.*, acids; insol.  $\text{W}$ .
- Copper Oxide Black Merck.**—Cupric.—Pure, powder or coarse granules (powd. 1; gran. 3)  
(Cupric Oxide; Copper Monoxide).—Fr. copper nitrate, or carbonate, by ignit.  $\text{—CuO}$ .—Brownish-black, amorph. powd., or black, coarse granules.—Teniafuge, Resolvent.—*Uses*: Powd.: Intern., in tapeworm.—Extern., in 3–5% oint., to remove chronic indurated glands. Both powd. & gran. used in organic analysis, & techn.—*Dose*  $\frac{3}{4}$ – $1\frac{1}{2}$  grains (0.05–0.1 Gm.) 3 or 4 t. p. d., in pills, for 2 weeks. Abstain from acid food.—*Max. D.* 8 grains (0.5 Gm.) single; 15 grains (1 Gm.) daily.
- do. Merck.—Technical (1)  
Black powd.—*Uses*: Producing green & blue colors on glass, faience, porcelain, & stoneware.
- do. Merck.—Wire (3)
- Copper Oxide Black Merck.**—Cupric.—Reagent (6)  
 $\text{CuO}$ .—Fine powd., or coarse gran., or wire.—*Tests*: ( $\text{HNO}_3$ ;  $\text{HCl}$ ;  $\text{CO}_2$ ) heat 100 Gm. & pass over it moist air free fr.  $\text{CO}_2$ —no vapors which redden litmus paper or render lime-water turb.—( $\text{Fe}$ , &c.) 2 Gm. + 10 Cc.  $\text{HCl}$  (sp. gr. 1.19) + 100 Cc.  $\text{H}_2\text{O}$ ; collect insol. res.; ignite—wt. of res. not more than 0.005 Gm.; into filtrate pass  $\text{H}_2\text{S}$  gas at abt. 70° C. till all  $\text{Cu}$  pptd.; filter; evaporate filtrate on  $\text{W}$ -bath, & ignite—wt. of res. not more than 0.02 Gm.—( $\text{H}_2\text{SO}_4$ ) 1 Gm. + 5 Cc.  $\text{HCl}$  (sp. gr. 1.19) +  $\text{H}_2\text{O}$  to make 50 Cc.; add solut.  $\text{BaCl}_2$ —no immed. turb.—( $\text{Ca}$ ) 20 Gm. + 5 Cc.  $\text{HNO}_3$  (sp. gr. 1.153) + 95 Cc.  $\text{H}_2\text{O}$ ; digest abt. 15 min. w. freq. shak.; filter; pass into filtrate  $\text{H}_2\text{S}$  gas till all  $\text{Cu}$  pptd.; filter; evaporate filtrate on  $\text{W}$ -bath to abt. 20 Cc.; add excess  $\text{NH}_3$ ; filter; to filtrate add  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ —no immed. turb.—*Uses*: Ultimate organic analysis.
- Note.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.
- do. Merck.—Reagent.—Wire (5)
- Copper Oxide, Hydrated.**—see **Copper Hydroxide**
- Copper Oxide Red Merck.**—Cuprous.—Pure (2)  
(Cuprous Oxide; Copper Suboxide).— $\text{Cu}_2\text{O}$ .—Reddish-brown, cryst. powd.—*Sol.*, amm., acids.—*Uses*: Chiefly techn., in manuf. red glass, red porcelain glaze, & copper electroplating.
- do. Merck.—Technical (1)  
Dark-brown, gran. powd.—*Uses*: As of preceding.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Copper Oxychloride Merck** (4)  
(Cupric Oxychloride).— $\text{CuO} \cdot \text{CuCl}_2$ .—Bluish-green powd.—*Sol.*, amm., acids.—*Uses*: Techn., as green pigment.

**Copper Palmitate Merck** (5)  
(Cupric Palmitate).— $\text{Cu}(\text{C}_{16}\text{H}_{31}\text{O}_2)_2$ .—Greenish-blue powd.—*Sol.*, sl. A.

**Copper Phenolsulphonate Merck** (4)  
(Cupric Phenolsulphonate, or Sulphocarbonate).— $\text{Cu}(\text{C}_6\text{H}_5\text{SO}_3)_2 \cdot 6\text{H}_2\text{O}$ .—Green cryst.—*Sol.* W., A.

**Copper Phosphate Merck** (3)  
(Cupric Phosphate).— $\text{CuHPO}_4$ .—Bluish-green powd.—*Sol.*, acids; insol. W.—*Antituberc.*—*Uses*: Recent tuberculosis.—*Dose*  $\frac{1}{8}$ – $\frac{1}{2}$  grain (0.008–0.03 Gm.) several t. p. d.—*Techn.*, detect.  $\text{CO}_2$  in potable waters.

**Copper Phosphide Merck.—Powder** (10)  
(Cuprous Phosphide).— $\text{Cu}_3\text{P}_2$ .—Grayish-black, metal. powd.—*Sol.*  $\text{HNO}_3$ ; insol. W.—*Uses*: Manuf. phosphor-bronze.

**Copper Platinocyanide.**—see **Platinum & Copper Cyanide**

**Copper Resinate Merck.—Precipitated** (2)  
Green powd.—*Uses*: Techn., in varnishes intended for preservation of metallic surfaces, & particularly for ships' bottoms.

**Copper Rhodanide.**—see **Copper Sulphocyanate**

**Copper Salicylate Merck** (6)  
(Cupric Salicylate; Normal Copper Salicylate).— $\text{Cu}(\text{C}_7\text{H}_5\text{O}_3)_2 \cdot 4\text{H}_2\text{O}$ .—Bluish-green, micros. need.—*Sol.* W., A.

**Copper Selenate Merck.—Cryst.** (125)  
(Cupric Selenate).— $\text{CuSeO}_4 \cdot 5\text{H}_2\text{O}$ .—Isomorph. w. copper sulphate, blue cryst.—*Sol.*, sl. W.

**Copper Sesquicarbonate.**—see **Copper Carbonate, Blue**

**Copper Silicate Merck** (3)  
(Cupric Silicate).— $\text{CuSiO}_3$ .—Greenish-blue, cryst. powd.—Insol. W.

**Copper Silicide.**—see **Silicon-Copper**

**Copper Silicofluoride Merck.—Cryst.** (6)  
(Cupric Silicofluoride).— $\text{CuF}_2 \cdot \text{SiF}_4 \cdot 6\text{H}_2\text{O}$ .—Blue, hygros. cryst.—*Sol.* W.—*Uses*: Techn., dyeing & hardening white marble, & prepar. the "bouillie beaujolaise" for treating the "white disease" of vines, caused by the Oidium.

**Copper-Silicon.**—see **Silicon-copper**

**Copper Stearate Merck** (6)  
(Cupric Stearate).—React.-prod. copper salt w. alkali stearate.— $\text{Cu}(\text{C}_{18}\text{H}_{35}\text{O}_2)_2$ .—Light blue, amorph. powd.—*Sol.* C., B., turpentine oil.—*Uses*: Bronzing plaster statues.

**Copper Subacetate.**—see **Copper Acetate, Basic**  
**Copper Subcarbonate.**—see **Copper Carbonate, Green**

**Copper Suboxide.**—see **Copper Oxide, Red**

**Copper Sulphate Merck.—Highest Purity, Medicinal, cryst.** (1)

(Cupric Sulphate; Blue Vitriol).— $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ .—Large, deep blue cryst., slowly efflores. in dry air; str. metal., styp. taste.—*Sol.* 2.6 W.; abt. 4 G. at  $15^\circ\text{C}$ .; (abt. 2.2 W., 400 A., & 3.5 G. at  $25^\circ\text{C}$ .; & in 0.5 boil. W.—U. S. P.).—Eschar.; Styptic; Astring.; Emetic; Alter.; Nervine, &c.—*Uses*: Intern., chronic diar. w. ulc., passive hemorrhage, epilepsy, dipth., croup, &c.—*Extern.*, in solut., ulc., gonorr., hyperidrosis, &c. Wet crust.: Warts, fungous granul. & edge of callous wounds; bleed. surf.; also used in veter. med.—*Dose*: Nerv. & Alter.,  $\frac{1}{6}$ – $\frac{1}{4}$  grain (0.01–0.015 Gm.); emetic, 2–5 grains (0.12–0.3 Gm.).—*Incomp.*, alkalies; arsenites; arsenic trioxide; iodides; lead acetate; lime-water; mercury bichloride; phosphates; silver nitrate; sodium borate; vegetable infusions & tinctures.—*Antid.*, as of copper acetate.

do. Merck.—Pure, cryst., gran. or powd. (1)

do. Merck.—Technical, cryst. or powd. (1)  
 $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ .—*Uses*: Techn., in dyeing; manuf. green & blue pigments; in galvanoplasty for plating other metals galvanically; copper soap; ink for marking tin; hair dye; insecticide mixtures (bouillies bordelaise, bourguignonne, dauphinoise) for treating the "white disease" of vines caused by the Oidium.—*Caut.* Poison!

do. Merck.—Fused, sticks (3)  
Bluish-green sticks.—*Sol.* W.—Caustic, Styp.—*Uses*: Caustic, for unhealthy granul.; also dentistry.

do. Merck.—Pencils, turned; also mounted in wood

$\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ .—Blue, cone-pointed pencils.

**Copper Sulphate Merck.—Reagent** (2)

(Cupric Sulphate).— $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ .—Blue, transp. cryst.—*Sol.* 3.5 cold, & 1 boil., W.; insol. A.—*Tests*: (*Salts of Alkali Met.*) 3 Gm. + 100 Ce.  $\text{H}_2\text{O}$  + 5 Ce.  $\text{HCl}$  (sp. gr. 1.124); pass into solut.  $\text{H}_2\text{S}$  gas at abt.  $70^\circ\text{C}$ . till all Cu pptd.; filter; evap. filtrate to dryness & ignite—wt. of res. not more than 0.001 Gm.—(*Fe*) 5 Gm. + 25 Ce.  $\text{H}_2\text{O}$  + 2 Ce.  $\text{HNO}_3$  (sp. gr. 1.3); heat to boil.; pass solut. through ashless filter & wash filter w. ammoniacal water till free fr. Cu; incin. filter w. any ppt. it contains, & ignite—wt. of res. not more than 0.001 Gm.—*Uses*: Prepar. Fehling's, Löwe's, Purdy's, & other reagents for glucose; test. peptones, albumen, mallow in wine; 1 &  $\text{CS}_2$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Copper Sulphate Merck.**—Anhydrous. — Pure, powder (1)

$\text{CuSO}_4$ .—Gray-wh. powd. — *Sol.* W. — *Uses:* Dehydrating agent. — *Caut.* Keep absolutely dry.

**Copper Sulphate Merck.**—Basic (2)

(Tribasic Cupric Sulphate).— $\text{CuSO}_4 \cdot 3\text{CuO} \cdot 3\text{H}_2\text{O}$ .—Blue powd. — *Sol.*, v. sl. W.

**Copper Sulphide Merck.**—Cupric. — Wet process (4)

Fr. copper sulphate, by sod. sulphide.— $\text{CuS}$ .—Black powd. — *Insol.* W. — *Uses:* Techn., as protective paint for ships' bottoms.

**Copper Sulphide Merck.**—Cuprous. — Fused, gran., powder or sticks (2)

Fr. copper & sulphur, by heat.— $\text{Cu}_2\text{S}$ .—Grayish-blue powd., gran. powd., or sticks.—*Insol.* W.

**Copper Sulphite Merck** (4)

(Cuprous Sulphite).— $\text{Cu}_2\text{SO}_3 + \text{H}_2\text{O}$ .—Brown, cryst. powd.—*Insol.* W.

**Copper Sulphocarbolate.**—see **Copper Phenolsulphonate**

**Copper Sulphocyanate Merck** (4)

(Cuprous Sulphocyanide, Thiocyanate, or Rhodanide).— $\text{Cu}_2(\text{SCN})_2$ .—Grayish-wh. powd. — *Sol.*, ammonia water; *insol.* W.

**Copper Tannate Merck** (4)

(Cupric Tannate).—Comp. variable.—Brown powd.—*Sol.*, ammonia water; *insol.* W.

**Copper Tartrate Merck** (2)

(Cupric Tartrate).— $\text{CuC}_4\text{H}_4\text{O}_6 + 3\text{H}_2\text{O}$ .—Greenish-blue powd.—*Sol.*, sl. W.; readily in solut. tartaric acid & solut. alkalies.—*Uses:* Analysis.

**Copper Thiocyanate.**—see **Copper Sulphocyanate**

**Copper Tungstate Merck** (12)

(Normal Cupric Wolframate).— $\text{CuWO}_4$ .—Light-green powd.—*Insol.* W.

**Copper Wolframate.**—see **Copper Tungstate**

**Copper & Ammonium Acetate Merck** (5)

(Ammonio-cupric Acetate).— $\text{Cu}(\text{NH}_4)_2(\text{C}_2\text{H}_3\text{O}_2)_4$ .—Blue cryst.—*Sol.* W.

**Copper & Ammonium Chloride Merck** (1)

(Ammonio-cupric Chloride).— $\text{CuCl}_2 \cdot 2\text{NH}_4\text{Cl} + 2\text{H}_2\text{O}$ .—Large, green cryst.—*Sol.* W.

**Copper & Ammonium Chloride Merck.**—Reagent (3)

(Ammonio-Cupric Chloride).— $\text{CuCl}_2 + 2(\text{NH}_4\text{Cl}) + 2\text{H}_2\text{O}$ .—Blue cryst.—*Sol.* W. (solut. is clear, & sl. acid to litmus paper).—*Tests:* (Free Acids) 30 Gm. + 100 Cc.  $\text{H}_2\text{O}$  + sev. pieces piano wire—latter dissolves w. deposit of Cu, but without evol. of gas.—( $\text{H}_2\text{SO}_4$ ) 1 Gm. + 20 Cc.  $\text{H}_2\text{O}$  + 1 Cc.  $\text{HCl}$  + solut.  $\text{BaCl}_2$ —no turb. within 5 min.—(*Salts of Alkali Metals, &c.*) 3 Gm. + 100 Cc.  $\text{H}_2\text{O}$  + 5 Cc.  $\text{HCl}$  (sp. gr. 1.124); pass into solut. at abt.  $70^\circ\text{C}$ .  $\text{H}_2\text{S}$  gas till all Cu pptd.; filter; evap. fil-

trate & ignite—wt. of res. not more than 0.002 Gm.— $\text{Fe}$  5 Gm. + 25 Cc.  $\text{H}_2\text{O}$  + 2 Cc.  $\text{HNO}_3$  (sp. gr. 1.3); heat to boil.; add 20 Cc.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96); pass through ashless filter & wash latter w. ammoniacal W. till free fr. Cu; incin. filter w. any ppt. it contains & ignite—wt. of res. not more than 0.002 Gm.—*Uses:* Determin. C in Fe.

*Note.* For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Copper & Ammonium Chromate Merck** (10)

(Ammonio-cupric Chromate).— $\text{Cu}(\text{NH}_4)_2(\text{CrO}_4)_2$ .—Green cryst.—*Sol.*,  $\text{NH}_4\text{OH}$ , & solut.  $(\text{C}_2\text{H}_3\text{O}_2)_4$ .

**Copper & Ammonium Citrate Merck** (7)

(Ammonio-cupric Citrate).— $\text{Cu}_3(\text{NH}_4)_3(\text{C}_6\text{H}_5\text{O}_7)_4$ .—Steel-blue, shining scales.—*Sol.* W.

**Copper & Ammonium Cyanide Merck** (11)

(Ammonio-cuprous Cyanide).— $\text{CuCN} \cdot \text{NH}_4\text{CN}$ .—Colorl. to green cryst.—*Insol.* W.

**Copper & Ammonium Nitrate Merck.**—Cryst. (6)

(Ammonio-cupric Nitrate).— $\text{Cu}(\text{NO}_3)_2 \cdot 2\text{NH}_4\text{NO}_3$ .—Blue cryst.—*Sol.* W.

**Copper & Ammonium Sulphate Merck** (1)

(Ammonio-cupric Sulphate; Copper Ammonio-sulphate).—By diss. cupric sulphate in amm. water & precip. w. alcohol.— $\text{CuSO}_4 \cdot 4\text{NH}_3 + \text{H}_2\text{O}$ .—Dark blue, cryst. powd.—*Sol.* W.—Antispasmodic; Astring.—*Uses:* Intern., epilepsy, hyst., chorea.—*Extern.*, chronic inflam. of eye, gleet, &c.—*Techn.*, as reagent for arsenic trioxide, in calico printing, manuf. copper arsenate, & as insecticide under the name "azurin" for *Peronospora* fungus.—*Dose*  $\frac{1}{2}$ –2 grains (0.03–0.12 Gm.) 3 or 4 t. p. d., w. tinct. opium, after meals.—*Mar. D.* 3 grains (0.2 Gm.) single; 6 grains (0.36 Gm.) p. d.—*Appl.* 0.2–1% solut. or oint.

do.—*Solution.*—U. S. P.

(Kieffer's Solution).—By adding amm. to copper-sulphate solut. until precip. nearly, but not completely, rediss.—*Uses:* Test for acids, espec. arsenic trioxide.—*Caut.* Keep in dark amber bot.

**Copper & Calcium Acetate Merck.**—Cryst. (25)

(Cupricalcium Acetate; Calcium & Copper Acetate).— $\text{CaCu}(\text{C}_2\text{H}_3\text{O}_2)_4 + \text{SH}_2\text{O}$ .—Blue cryst.—*Sol.*, dil. acetic acid.

**Copper & Hydrogen Arsenite**

(Scheele's Green).—Fr. cupric sulphate & alkali arsenite).— $\text{CuHAsO}_3$ .—Fine, light-green powd.—*Sol.*, alkalies.—*Uses:* Pigment.

**Copper & Potassium Chlorate Merck** (4)

(Potassio-cupric Chlorate).— $\text{Cu}(\text{ClO}_3)_2 \cdot 2\text{KClO}_3$ .—Green cryst.—*Sol.* W.

**Copper & Potassium Chloride Merck** (1)

(Potassio-cupric Chloride).— $\text{CuCl}_2 \cdot 2\text{KCl} + 2\text{H}_2\text{O}$ .—Bluish-green cryst.—*Sol.* W.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Copper & Potassium Cyanide Merck** (3)  
(Potassio-cuprous Cyanide).— $\text{Cu}_2\text{K}_2\text{C}_6\text{N}_6$  or,  
 $\text{Cu}_2(\text{CN})_2 \cdot 2\text{KCN}$ .—Wh., cryst. powd.—*Sol.* W.

**Copper & Potassium Ferrocyanide Merck** (6)  
(Potassio-cupric Ferrocyanide).— $\text{K}_2\text{Cu}(\text{CN})_6$   
+  $\text{H}_2\text{O}$ .—Brownish-red powd.—*Insol.* W.

**Copper & Potassium Tartrate Merck** (8)  
(Potassio-cupric Tartrate).—Fr. cupric oxide in  
boil. solut. cream of tartar,  $\text{CuK}_2(\text{C}_4\text{H}_4\text{O}_6)_2$ .—  
—Blue scales.—*Sol.* W.

**Copper & Sodium Chloride Merck** (3)  
(Sodio-cupric Chloride).—Mixture of cupric  
chloride & sodium chloride.

**Copper Sulphate-Guaiac Paper.**—see **Guaiac-  
Copper Sulphate Paper**

**Copperas.**—see **Iron Sulphate**

### Coptis

(Gold Thread).—Roots of *Coptis trifolia*, Salis-  
bury, Ranunculaceae.—*Habit.*: British America,  
south to Maryland & Minnesota.—*Etymol.*: Fr.  
Grk. "koptein," to cut, *i.e.*, the lvs. appear as if  
cut. "Trifolia" refers to the ternate lvs.—  
*Constit.*: Berberine; coptine.—*Uses*: Tonic in  
gen'l debil.; also applied locally in ulcer. mouth.  
—*Dose*: Fld. extr., 10–30  $\text{m}$  (0.6–2 Ce.).

**Coral Root.**—see **Corallorhiza**

**Coral-Tree Bark.**—see **Erythrina**

**Corallin Merck** (8)  
(Paeonine; Aurine R.).—Probably rosaniline  
rosolate, or dioxamidotriphenylearthydride.—  
Reddish-brown powd.—*Sol.* A.; *insol.* cold W.,  
sl. in boil. W.—*Uses*: Dyeing wool & silk, shades  
between magenta & cochineal. Indicator for  
alkalies (alkalies=violet-red; acid=yellow).

**Corallin Stain.**—see **Strassburger's Corallin**

### Corallorhiza

(Coral Root; Crawley Root).—Root of *Coral-  
lorhiza odontorhiza*, Nuttall, Orchidaceae.—  
*Habit.*: U. S. (Massachusetts to Florida, & west  
to Missouri).—*Etymol.*: Fr. Grk. "korallion,"  
coral, & "rhiza," root, referring to the coral-like  
root-stalks. "Odontorhiza" fr. Grk. "odonto,"  
tooth, & "rhiza," root, referring to the toothed  
root-stalks.—*Diaphor.*: Antiatarrhal.—*Uses*:  
Colds & febrile condit.—*Dose*: Fld. extr., 30–60  $\text{m}$   
(2–4 Ce.).

**Cordia Boissieri.**—see **Anacahuite**

**Cordol.**—see **Tribromsalol**

**Coriamyrtin Merck** (12000)

Bitter principle fr. lvs. & fruit of *Coriaria myrti-  
folia*.— $\text{C}_{30}\text{H}_{36}\text{O}_{10}$ .—Colorl. cryst.—*Sol.* W., A.,  
E., C.—*Melt.* 228–230° C. (sinters fr. 220° C. up-  
wards).—*Analeptic.*—*Uses*: Collapse, especially  
due to debilitated respiratory & vascular centers.  
—*Max. D.*  $\frac{1}{60}$  grain (0.001 Gm.).

**Coriander.**—*U. S. P.*

Dried, ripe fruit of *Coriandrum sativum*, L.  
Umbelliferae.—*Habit.*: Asia; Europe.—*Etymol.*:  
Grk. "koris," bed-bug, & "anison," anise, *i.e.*,  
the lvs. have an odor resembling that of bed-bugs  
& anise. *Sativum* fr. Lat. "sativus," sown  
cultivated.—*Constit.*: Volat. & fixed oils; malic  
acid; tannin; mucilage.—*Uses*: Carmin.; Aromat.;  
Stim.; Stoma.; Flavoring.—*Doses*: 10–60 grains  
(0.6–4 Gm.).—Fld. extr., 20–60  $\text{m}$  (1.3–4 Ce.).

**Corn Ergot.**—see **Ustilago**

**Corn Flower.**—see **Centaurea**

**Corn Silk.**—see **Zea**

**Corn Smut.**—see **Ustilago**

**Corn Sugar.**—see **Dextrose**

**Cornin (Eclectic)** (10)

Powd., resin. extr. fr. *Cornus florida*, L. (Flower-  
ing Dogwood).—Brown, bitter powd.—*Sol.* A.—  
Antiper.; Tonic; Astring.—*Uses*: Intern. fever  
& as tonic.—*Dose* 2–5 grains (0.12–0.3 Gm.).

### Cornus Circinata

(Green Osier; Round-leaved Dogwood).—Bark  
of *Cornus circinata*, L'Héritier, Cornaceae.—  
*Habit.*: Canada & northeastern U. S.—*Etymol.*:  
Lat. "cornus," horn, referring to the hardness of  
the wood. "Circinata" refers to the circular  
form of the lvs.—Antiper.; Bitter Tonic.—*Uses*:  
Malarial fevers.—*Dose*: Fld. extr., 10–60  $\text{m}$  (0.6–  
4 Ce.).

### Cornus Florida

(Dogwood; Flowering Dogwood).—Root bark  
of *Cornus florida*, L. Cornaceae.—*Habit.*: Ontario  
& eastern U. S.—*Etymol.*: Lat. "cornus," horn,  
referring to the hardness of the wood.—"Florida"  
refers to its flowering habit.—*Constit.*: Cornine.  
—Astring.; Tonic; Antiper.—*Uses*: Diarrhea,  
dysentery, dyspep., malaria, &c.—*Doses*: Extr.,  
5–10 grains (0.3–0.6 Gm.).—Fld. extr., 30–60  
 $\text{m}$  (2–4 Ce.).

**Cornutine Merck** (8750)

(Eboline).—Alkaloid fr. *Claviceps purpurea*,  
Tulasne (Ergot).—Amorph., brownish powd.;  
or brownish-black mass.—*Sol.*, hot A.; sl. W.—  
Internal Hemostatic; Emmen.; Genital Tonic.  
—*Uses*: In hemorrhage fr. gen.-urin. organs,  
paralytic spermator., &c. Prof. Kobert claims  
it true active prin. ergot; accord. to Tanret,  
however, cornutine is a more or less decomposed  
ergotinine (which see).—*Doses*: Hemostat.,  $\frac{1}{12}$ –  
 $\frac{1}{6}$  grain (0.005–0.01 Gm.); spermator.,  $\frac{1}{20}$  grain  
(0.003 Gm.) twice daily.—For subcut. inject. a  
sterilized solut. of cornutine citrate is best  
adapted.

**Cornutine Citrate Merck** (8750)

Brownish-black powd.—*Sol.* A.; v. sl. W.—  
Intern. Hemostat.; Emmen.; Genital Tonic.—  
*Uses*: To promote contractions both before &  
after childbirth; hemorrhage fr. genito-urinary

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potas-  
sium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sul-  
phate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine;  
2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



organs; paralytic spermatorrh., &c.—*Dose*: Hemostat. (urethra, bladder, uterus),  $\frac{1}{12}$  grain (0.002 Gm.) 5 t. p. d.; in gynecol.,  $\frac{1}{12}$ – $\frac{1}{6}$  grain (0.005–0.01 Gm.); in paralytic spermatorrh.,  $\frac{1}{30}$  grain (0.003 Gm.) twice daily, per os.—*Inj.*, subcut.,  $\frac{1}{30}$ – $\frac{1}{15}$  grain (0.002–0.005 Gm.) of sterilized cornutine citrate in solut.

**Cornutine Hydrochloride Merck** (10000)  
Amorph., brown mass, or powd.—*Sol.* W., A.

**Coronilla**  
(Ax-wort; Axseed; Hive-vine).—Whole plant, *Coronilla varia*, L. Papilionaceae.—*Habit.*: Europe; adv. in U. S.—*Etymol.*: Fr. Lat. "corona," crown, referring to the crown-shaped appearance of the flower buds.—*Constit.*: Coronillin,  $(C_{21}H_{33}O_8)_x$ .—*Diuret.*—*Uses*: Specific in cardiac dropsy.—*Dose* 30–150 min. (2–10 Ce.) of 1:5 tinct. prepared with 80% alcohol.

**Coronillin Merck** (2500)  
Glucoside fr. *Coronilla scorpioides*, Koch.— $(C_{21}H_{33}O_8)_x$ .—Yellow powd.—*Sol.* W., A.—*Cardiac Tonic & Diur.*—*Uses*: Cardiac dropsy & o. affect., especially paroxysmal tachycardia, aortal stenosis, & mitral insufficiency, inst. of digitalis; strengthens pulse, increases secretion urine, & dimin. edema & dyspnea; contraindic. in fatty heart.—*Dose* 10 grains (0.6 Gm.) p. day, in 4–6 portions, in solut. w. G. & syrup, coffee, or in pills.

**Corpus Luteum Merck**.—Dried (700)  
Fr. the Corpus luteum of the cow.—1 part =  $5\frac{1}{2}$  parts of the fresh organ.—*Uses*: In various affections of pregnancy.—*Dose* 1 grain (0.06 Gm.) twice daily.

*Corrosive Sublimate*.—see **Mercury Bichloride**

**Corydalin (Resinoid)** (40)  
Powd. alcoh. extr. fr. root *Corydalis formosa*, Pursh (Squirrel Corn).—Brown powd.—*Sol.* A.—*Uses*: Syph. affect., scrof. & skin dis.—*Dose* 1–3 grains (0.06–0.2 Gm.).

**Corydaline Merck**.—Alkaloid (2000)  
Fr. root *Corydalis cava*, L. (C. tuberosa, De C.),  $C_{22}H_{27}NO_4$  (Freund).—Colorl. cryst.—*Sol.* A., C., E.—*Melt.* 135° C.—Heart Tonic.—See also Bulbocapnine.

**Corydalis**  
(Squirrel Corn; Turkey Corn; Stagger-weed).—Rhizome of *Corydalis cava* L.; also *Dicentra canadensis*, De C. Fumariaceae.—*Habit.*: Ontario to Kentucky & Missouri.—*Etymol.*: "Korydalis," the crested bark, is the Grk. name for the plant.—*Constit.*: Corydaline,  $C_{22}H_{27}NO_4$ ; bulbocapnine,  $C_{19}H_{19}NO_4$ ; corytuberine,  $C_{19}H_{25}NO_4$ ; corycavine,  $C_{23}H_{23}NO_6$ ; corybulbine,  $C_{21}H_{25}NO_4$ ; corydine(?); fumaric acid; bitter extractive; acrid resin, &c.—*Tonic*; *Diuret.*; *Alter.*—*Uses*: Dyspep., dropsy, & syphil. affections.—*Dose*: Fld. extr., 30–60  $\mathfrak{m}$  (2–4 Ce.).

## Corydine

Amorph. alkaloid fr. *Corydalis cava*, L. (C. tuberosa, De C.).

*Corypha*.—see **Carnauba**

## Cosaprin

(Sodium Acetsulphanilate).— $NH(CO.CH_3)[1]-C_6H_4.SO_2Na[1]$ .—Wh., cryst. mass.—*Sol.*, v. eas. W.; diffie. A.; insol. E.—*Antipyr.*—*Uses*: Instead of acetanilide.—*Dose* 3–8 grains (0.2–0.5 Gm.).

*Cosmoline*.—see **Petrolatum**

*Colarnine Hydrochloride*.—see **Stypticin**

*Colarnine Phthalate*.—see **Styptol**

## Coto

(Coto Bark).—Bark of an undetermined South American tree, probably, however, *Palicourea densiflora*, Mart. Rubiaceae. Drimys Winteri, var. granatensis, has also been credited as being the source.—*Habit.*: Bolivia.—*Etymol.*: "Coto-coto" is the Brazilian name of the bark.—Occurs in pieces 4–12 in. long, 2–4 in. wide, &  $\frac{1}{2}$ – $\frac{3}{4}$  in. thick, flat or curved; extern., cinnamon-brown & smooth; inner surface darker brown; granular fract.; arom., cinnamon-like odor; pungent, slightly bitter taste.—*Constit.*: Cotoin,  $C_{34}H_{52}O_4$ ; dicotoin,  $C_{25}H_{40}O_6$ ; phenylcumelin,  $C_{11}H_{18}O_2(?)$ ; piperonylic acid,  $C_8H_6O_4$ ; volat. oil; resin; tannin.—*Astring.*; *Antisep.*; *Antisudorific* in phthisis; *Antirheum.*—*Uses*: In diar. & dysent. of tuberculosis & typhoid.—*Extern.*, in rheum., gout, & toothache.—*Doses*: 5–15 grains (0.3–1 Gm.), in powd.—*Extr.*, 1–3 grains (0.06–0.2 Gm.).—*Fld. extr.*, 5–15  $\mathfrak{m}$  (0.3–1 Ce.).—*Tinct.*, 10–20  $\mathfrak{m}$  (0.6–1.3 Ce.).

## Coto (Para-)

(Para-coto Bark).—Source not definitely known.—*Habit.*: Bolivia; Brazil.—Resembles coto bark in general appearance very much, but has a much weaker odor, & only a faintly pungent, acrid taste.—*Constit.*: Paracotoin,  $C_{12}H_{18}O_4$ ; hydrocotoin,  $C_{12}H_{14}O_4$ ; protocotoin,  $C_{16}H_{14}O_6$ ; methylhydrocotoin,  $C_{16}H_{16}O_4$ ; methylprotocotoin,  $C_{17}H_{16}O_6$ ; piperonylic acid,  $C_8H_6O_4$ ; volat. oil; tannin.—*Astring.*; *Analg.*; *Antisep.*—*Uses*: Chron. diar., gastric catarrh, neural., rheum., toothache, & gout.—*Doses*: 5–10 grains (0.3–0.6 Gm.).—*Tinct.*, 10–20  $\mathfrak{m}$  (0.6–1.3 Ce.).—*Fld. extr.*, 5–10  $\mathfrak{m}$  (0.3–0.6 Ce.).

## Cotoin Merck

—True (280)

Cryst. prin. fr. coto bark.— $C_6H_2(OH)_2(OCH_3)-COOC_6H_5$ .—Yellowish, cryst. powd.; pungent taste.—*Sol.* A., E., C., B.; sl. W.—*Melt.* 130–131° C.—*Antidiar.*; *Antisudor.*, &c.—*Uses*: Cholera, dysent., diar., phthis. night-sw., &c.—*Dose* 2–3 grains (0.12–0.2 Gm.) several t. p. d. in wafers.—*Contraind.* in intest. hyperemia w. tendency to bleeding.—*Max. D.* 5 grains (0.3 Gm.) single; 15 grains (1 Gm.) daily.

*Cotoin, Hydro*.—see **Hydrocotoin**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Cotoin, Para.*—see **Paracotoin**

*Cotoin, Proto.*—see **Protocotoin**

*Cotoinformaldehyde.*—see **Fortoin**

*Cotton Blue R.*—see **Phenyl Blue**

*Cotton-root Bark.*—see **Gossypium-root Bark**

*Couch Grass.*—see **Triticum**

*Coumarin.*—see **Cumarin**

*Coumarouna Bean.*—see **Tonka**

*Courbaril Bark.*—see **Hymenæa Bark**

*Cowbane.*—see **Cicuta**

*Cowhage.*—see **Mucuna**

*Cowslip.*—see **Primula**

*Cowrie.*—see **Copal**

### Crabs' Eyes

(Crabstones; Lapis Cancerorum; Oculi [Calculi] Cancerorum).—Concretions found in the stomach, one on each side, of the European crawfish, *Astacus fluviatilis*. Crustacea. Malacostraca.—*Habit.*: European rivers.—*Etymol.*: Lat. "lapis," stone, & "cancer," a crab.—*Inod.*, insipid bodies; somewhat hemispherical shape; whitish or reddish color; hard & stony consistency & laminated texture.—*Constit.*: Carbonic acid; lime; calcium phosphate; animal matter (gelatin).—*Uses*: Antacid like prepared chalk; popular remedy for removing foreign bodies from the eye.—*Dose* 10–40 grains (0.6–2.6 Gm.).

*Cramp Bark.*—see **Viburnum Opulus**

*Cranesbill.*—see **Geranium**

*Crawley Root.*—see **Corallorhiza**

*Cream Tartar.*—see **Potassium Bitartrate**

*Cream Tartar, Soluble.*—see **Potassium & Sodium Borotartrate**

### Creatin Merck (1500)

(Methylglycoeyamine; Methylguanidineacetic Acid; Kreatin).—Stimul. prin. fr. beef.— $C_4H_7N_3O_2$ , or,  $NH_2C(NH_2)N(CH_3)CH_2CO_2H$ .—Colorl. to yellowish powd.—*Sol.* 70 W.—Muscular Stim., in atonic conditions of the general muscular system, of the heart, & of the digestive organs.—*Dose*  $1\frac{1}{2}$  grains (0.1 Gm.) 4–6 t. p. d., in powd.

*Creatin, Dehydrated.*—see **Creatinine**

### Creatinine Merck (5000)

(Dehydrated Creatin; Kreatinine; Methylglycoeyamidine).—Leucomaine fr. urine.— $C_4H_7N_3O$ , or,  $NH_2C(NH_2CO)N(CH_3)CH_2$ .—Wh. or yellowish monoclinic cryst.—*Sol.* 12 W.—*Uses* & *Dose*: As of creatin.

### Creatinine & Zinc Chloride Merck (1500)

By-product in creatinine manuf.— $ZnCl_2 \cdot C_4H_7N_3O \cdot H_2O$ , or,  $ZnCl_2(C_4H_7N_3O)_2$ .—Colorl. to yellowish crystals.—*Sol.*, dil. HCl; sl. in W.

### Creolin-Pearson

(1)

(Saponified Coal-Tar Creasote, Pearson).—Composed of homologues of carbolic acid, W., hydrocarb., org. bases, sod., resin, sulphur & chlorine.—Dark brown, syr. liq.; tar odor.—*Sp. Gr.* 1.040–1.080.—*Sol.*, all prop. A., E., C.; milky emuls. w. water; sol. in W. to 2.5%.—*Germic.*; *Deodoriz.*; *Antisept.*; *Styp.*; *Anticholeraic*, &c.—*Uses*: Non-poison. substit. f. carbolic acid.—*Intern.*, dysent., diar., meteorism, gast. catarrh, worms, thrush, diphth., &c.; enema 0.5% solut.; dysent. troubles.—*Extern.*, 0.5 to 2% solut.: somet. undil.; surg. operat. 1–5:1,000 inj., for gonorr.; 2–5% oint. in scabies & pediculi, erysipelas, cyst., burns, ulcers, &c.—*Veter.*, 10% oint. w. petrolatum, lard or lanum.—*Dose* 1–5 m (0.06–0.3 Cc.) 3 t. p. d., in pills. In cholera. 16 m (1 Cc.) every  $\frac{1}{2}$ –1 hr. for 5 doses, then at longer intervals.—*Caution*. Aqueous solut. should be freshly made when wanted.

*Creosal.*—see **Tanosal**

### Creosol Merck

(35)

(Homoguaiacol; Kreosol; Homopyrocatecholmonomethyl Ester).—By distil'n fr. beechwood tar or resin guaiac.— $C_8H_{10}O_2$ , or,  $C_6H_5 \cdot CH_2 \cdot (OCH_3) \cdot (OH) \cdot [1:3:4]$ .—Colorl. to yellowish, str'ly refract., arom. liq.—*Sp. Gr.* 1.089 at 13° C.—*Misc.* A., E., B.—*Sol.*, sl. W.—*Boil.* 220° C.—*Antisept.*

### Creosotal

(13)

(Creosote Carbonate).—Guaiacol carbonate w. o. carbonates.—Colorl. to yellowish, viscid, oily liq.—92% creosote.—*Sol.*, oils, A., E.; insol. W.—*Antituberc.*—*Uses*: As of creosote.—*Dose* 20 m (1.3 Cc.) grad. increased to 80 m (5 Cc.) sev. t. p. d.—*Max. D.*: Daily, 240 m (15 Cc.).

### Creosote from Beechwood Merck

(2)

(Kreosote; Creasote).—Mixture phenols, & phenol derivatives, chiefly creosol,  $C_6H_5OCH_3 \cdot CH_3OH$ , & guaiacol,  $C_6H_5(OCH_3)OH$ , by distil'n fr. wood-tar, preferably that of *Fagus sylvatica*, L., or *F. ferruginea* Aiton. *Fagaceæ*. (Beech.).—Colorl., or faintly yellow, oily liq.; charact. smoky odor; caustic, burn. taste.—*Sp. Gr.* 1.080 at 15° C. (Not below 0.078 at 25° C., U. S. P.).—*Sol.*, all prop. A., E., C., B.; carbon disulphide, acetic acid, oils, 120 hot W.—*Boil.* 205–220° C.—*Antituberc.*; *Antisept.*; *Antipyr.*; *Anthem.*—*Uses*: Phth., diab. mell., enlarged cervical glands, toothache, vomiting, cholera morbus, diar., dysent., abnorm. gastric & intestin. ferment. processes, &c.—*Extern.*, diluted, locally in chilbl., burns, diphth., fetid leucor., fistulous ulcers, &c.; used also in dentistry as addition to arsenical pastes, destroying disensed pulp.—*Dose* 2–5 m (0.12–0.3 Cc.) in emulsion or pills; increase dose gradually to limit of tolerance.—*Max. Initial D.* 5 m (0.3 Cc.) single; 15 m (1 Cc.) p. day.—*Antid.*, emetics, stomach siphon, soluble sulphates, such as Glauber, or Epsom, salt.—*Incomp.*, acacia;

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



albumen; cupric, ferric, gold, & silver salts; oxidizers.—*Test*—If 1 Cc. is shaken w 2 Cc. benzol & 2 Cc. freshly prepared barium-hydroxide T. S., upon separating, the benzol should not bee. blue or muddy, & the aq. layer should not require a red tint, showing absence of poisonous carbunol & some other high-boiling wood-tar constituents (U. S. P.).—*Caut*—Wherever Creosote is indicated for internal medication, Creosote from Beechwood Merck should be dispensed; & under no circumstances give "Creosote from Coal Tar" unless explicitly ordered. Wood Creosote & Coal-tar Creosote differ very widely in their action on the human body: Wood Creosote is comparatively harmless; Coal-tar Creosote is decidedly poisonous.—Expose bottle to the light; avoid severe changes of temperature; keep in blue bottles; open to air as little as possible.

*Note*.—The U. S. P. now recognizes only this high grade.

### "Creosote" from Coal Tar

Yellowish, oily, clear liquid.—Sp. Gr. 1.07.—*Boil.* 200–225° C.—*Caut.* This Creosote should be used *only* for toothache, chilblains, &c.; also techn.—Wherever Creosote is indicated for internal or external medication, Creosote from Beechwood Merck should be dispensed; & under no circumstances give Creosote from Coal Tar unless explicitly ordered. Wood Creosote & Coal Tar Creosote differ very widely in their action on the human body. Wood Creosote is comparatively harmless, while Coal-tar Creosote is decidedly poisonous.

*N. B.*—Merck & Co. no longer supply Coal-tar Creosote, but give Beechwood Creosote on all orders calling for "Creosote." This course is in line with the resolution adopted by the A. Ph. A. (1902), "that the name 'Creosote' be confined to that derived from 'Beechwood'; and that manufacturers and wholesalers be requested to drop coal-tar creosote, under that name, from their price lists."

### Creosote Benzoate Merck

(25)

Yellowish liq.—*Sol.* A., E.—*Antisep.*—*Uses*: Locally, by spray in nose & throat dis.

*Creosote Carbonate*.—see **Creosotal**

*Creosote Oleate*.—see **Oleocreosote**

### Creosote Phosphate Merck

(15)

$\text{PO}_4(\text{C}_6\text{H}_5)_3$ .—Colorl., viscid mass.—*Sol.* A.; insol. w., & dil. alkalies.—Recommended as non-irritant, non-toxic succedan. for creosote, & used like latter.—*Dose* 90 grains (6 Gm.) p. d.

### Creosote Phosphite

(Phosphotal).—Reddish-yellow, oily liq.; faint creosote odor; pungent taste.—Abt. 90.5% creosote.—*Sol.*, eas. W., A., E., C., G., oils.—*Antitubercular*; *Anticachectic*.—*Uses & Dose*: As of creosote; in pills, wine, or elixir.

*Creosote Tannate*.—see **Tanosal**

### Creosote Valerate

(15)

(Creosote).—Colorl. to yellowish liq.—*Sol.* A., E.—*Antituberc*; *Intest.* *Disinfect.*—*Uses*: As of creosote.—*Dose* 3–10 M (0.2–0.6 Cc.) 3 t. p. d. in caps. or milk.

### Creosote-calcium Chlorhydrophosphate Merck

(15)

Syrupy mass, consisting of calcium chlorhydrophosphate & creosote carbonate.—*Uses*: *Phth.*, *scrofula*.—*Dose* 5–8 grains (0.3–0.5 Gm.) twice p. d. in emulsion.

### Cresalol (Meta-) Merck

(20)

(Meta-cresalol; Meta-cresylic Ester of Salicylic Acid).—Fr. salicylic acid, with meta-cresol.— $\text{C}_{14}\text{H}_{12}\text{O}_3$ , or,  $\text{C}_6\text{H}_4.\text{OH}.\text{COOC}_6\text{H}_3.\text{CH}_3$ .—Wh. powd.—*Sol.* A.; insol. W.—*Melt.* 74° C.—*Uses & Dose*: As of para-cresalol, as succedan. for salol.

### Cresalol (Ortho-) Merck

(20)

(Ortho-cresalol; Ortho-cresylic Ester of Salicylic Acid).—Fr. salicylic acid with ortho-cresol.— $\text{C}_{14}\text{H}_{12}\text{O}_3$ , or,  $\text{C}_6\text{H}_4.\text{OH}.\text{COOC}_6\text{H}_3.\text{CH}_3$ .—Wh. powd.—*Sol.* A., E.; insol. W.—*Melt.* 35° C.—Not used therapeutically.

### Cresalol (Para-) Merck

(20)

(Para-cresalol; Para-cresylic Ester of Salicylic Acid; Cresol Salicylate).—Condens. prod. salicylic acid w. para-cresol.— $\text{C}_{14}\text{H}_{12}\text{O}_3$ , or,  $\text{C}_6\text{H}_4.\text{OH}.\text{COOC}_6\text{H}_3.\text{CH}_3$ .—Wh., cryst. powd.—*Sol.* A., E.; insol. W.—*Melt.* 39° C.—*Antisep.*; *Anti-rheum.*, like salol.—*Uses*: Asiatic cholera, typhoid, dysent., rheum., &c.—*Dose* 5–15 grains (0.3–1 Gm.) several t. p. d. in wafers.—*Max. D.*: 60 grains (4 Gm.) p. d.

### Cresol Merck.—U. S. P.

(1)

(Kresol; Cresylol; Cresylic, or Kresylic, Acid).— $\text{C}_7\text{H}_7\text{OH}$ , or,  $\text{C}_6\text{H}_4(\text{CH}_3)\text{OH}$ .—Mixt. of three isomeric cresols obt. fr. coal-tar, freed fr. phenol, hydrocarbons, & water.—Colorl. or straw-colored liq.; phenol-like odor; turns yellowish-brown on prolonged expos. to light.—Sp. Gr. 1.032 at 25° C.—*Sol.* 60 W. at 25° C.; *misc.*, all propor. w. benzin, A., E., G., & solut. alkali hydroxides.—*Boil.* 195–205° C.—*Uses*, &c.: As of crude carbolic acid.

*Cresol Iodide*.—see **Europhen**

### Cresol (Meta-) Merck

(8)

(Meta-cresylic Acid; Metaoxytoluene; Meta-methylphenol; Cresylic Acid).—Fr. coal-tar, by fractional distil.; or fr. thymol, by phosphorus pentoxide & caustic potassa.— $\text{C}_7\text{H}_7\text{O}$ , or,  $\text{C}_6\text{H}_4.\text{OH}.\text{CH}_3$  [1:3].—Colorl. to yellowish liq.; phenol-like odor.—Sp. Gr. 1.0498 at 0° C.—*Sol.* A., E., C.; sl. in W.; solub. increased by alkali, sod. salicylate, or cresotate.—*Boil.* 202° C.—*Uses*: *Disinfect.*; *Antisep.*; abt. one-fourth as poison. as carbolic acid, while much stronger as antisep.—*Dose* 1–3 M (0.06–0.2 Cc.).—*Appl.*, in 0.5% aqu. solut.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Cresol (Ortho-) Merck**

(3)

(Cresylalcohol; Orthocresylic Acid; Ortho-oxytoluene; Orthomethylphenol).—Homologue of phenol, fr. tar oil, by fractional distill'n.— $C_7H_8O$ , or,  $C_6H_4.OH.(CH_3)$  [1:2].—Wh. crystals.—*Sol.* A., E., C., alkalies; abt. 30 W.—*Melt.* 28–30° C.—*Boil.* 187–189° C.—*Uses:* Disinf. Less poison. than carbolic acid.

do. Merck.—Highest Purity

(4)

**Cresol (Para-) Merck.—Cryst.**

(10)

(Paraeresylic Acid; Paraoxytoluene; Paramethylphenol).—By fusing paratoluene-sulphonic acid w. KOH.— $C_7H_8O$ , or,  $C_6H_4.(CH_3).OH$  [1:4].—Cryst. mass; odor of phenol.—*Sol.* A., E., C.; sl. W.—*Melt.* 36° C.—*Boil.* 198° C.—*Uses:* Disinfect.

*Cresol Salicylate.*—see **Cresalol, Para-***Cresylalcohol.*—see **Cresol, Ortho-***Cresylol.*—see **Cresol****Crispment**

(Balm Mint; Curled Mint; Cross Mint).—Lvs. of *Mentha crispa*, L. Labiate.—*Habit.*: Germany.—*Etymol.*: Fr. Grk. "Mintha," daughter of Coeytus, i.e., she was supposed to have been changed into this plant by Proserpine, in a fit of jealousy. "Crispa" fr. Lat. "crispus," curl, referring to the shape of the leaf.—*Constit.*: Volat. oil; tannin.—*Arom.*: Carmin.—*Uses*: Colic, flatulence, cholera & diar.

**Crocus**

(Saffron; Spanish [or French] Saffron).—Stigmas of *Crocus sativus*, L. Iridaceae.—*Habit.*: Western Asia; Southern Europe (France & Spain).—*Etymol.*: Fr. Grk. "krokos" or "kroko," a thread, i.e., the stigmas are thread-like. Lat. "sativus," cultivated; saffron fr. the Arabic "asfar," yellow.—Flattish-tubular, almost threadlike stigmas abt.  $1\frac{1}{4}$  in. (3 Cm.) long; orange-brown color; strong, peculiar, arom. odor; bitterish, arom. taste.—*Constit.*: Volat. oil; crocin (polychroit); fixed oil; wax.—*Stomachic*; Antispasmod.; Emmen.; Antihysterie.; Diaphor.; Anodyne.—*Uses*: Chiefly to hasten eruptions in exanthematous diseases.—*Techn.*, for flavoring & color.—*Doses*: 5–30 grains (0.3–2 Gm.) in powd. or infus.—Aleoh. extr., 2–6 grains (0.12–0.36 Gm.); rarely used.—*Tinet.*, 20–40 drops.

*Crocus Antimony.*—see **Antimony Oxide, Brown***Crocus Martis.*—see **Iron Hydroxide***Crocus Martis Adstringens.*—see **Iron Oxide, Red***Crocus Metallorum.*—see **Antimony Oxide, Brown****Crotin Merck**

Mixt. of exceedingly toxic albuminoids fr. seeds of *Croton Tiglium*.—Wh. powd.; abt. 20% ash.—*Sol.*, solut. sod. chloride.—A vegetable agglutinin w. hemolytic action on blood of rabbits & crows; coagulates both boiled & unboiled milk.

*"Croton" Chloral.*—see **Butyl-Chloral***"Croton" Chloral Hydrate.*—see **Butyl-Chloral Hydrate***Croton Tiglium.*—see **Tigilium***Crudya Oblitua.*—see **Impigem****Cruirin**

(35)

(Quinoline-Bismuth Sulphocyanate [Rhodanide]).— $13(SCN)_3 + 3(C_6H_7N.HSCN)$ .—Reddish-yellow, gran. powd.—*Insol.* W., A., E.—*Melt.* 76° C.—Antiscp.—*Uses*: Syphilit. sores & ulcers as dressing either pure, or w. equal part starch; in gonorr., 0.5% glycerino-aqueous suspension.

**Cryogenine**

(Metabenzaminocarbazine; Kryogenin).—Wh., cryst., odorl., somewh. bitter powd.—*Sol.* A., C., E.; 40 W.—Antipyr.—*Uses*: Phth., typhoid.—*Dose* 5–15 grains (0.3–1 Gm.).

**Cryptopine Merck.—Pure**

(3500)

Alkaloid fr. opium.— $C_{21}H_{23}NO_5$ .—Wh., cryst. powd.—*Sol.*, boil. C. & boil. A.; alm. insol. E. & B.—*Melt.* 217° C.

**Cryptopine Hydrochloride Merck**

(3500)

$C_{21}H_{23}NO_5.HCl + 6H_2O$ .—Wh., cryst. powd.—*Sol.*, eas. hot W.

*Crystallin.*—see **Globulin****Crystallin**

Solut. pyroxylin 1, in methyl alcohol 4, & amyl acetate 15; resembles collodion. An "elastic" crystallin results on adding 5 castor oil & 10 Canada balsam to 20 crystallin.—*Uses*: As of collodion; vehicle for remedial agents in skin diseases (e.g., chrysarobin, salicylic acid, &c.).

**Cubeba.—U. S. P.**

(Cubebis; Tailed Pepper; Java Pepper).—Dried, unripe, but fully grown fruit of *Piper Cubeba*, L. fil. (*Cubeba officinalis*, Miq.). Piperaceae.—*Habit.*: Southern Asia (Java, Borneo, Sumatra); cultivated in W. Indies & Ceylon.—*Etymol.*: Grk. "koubeba," fr. Persian "kababa," Indian "cubab," or Arabic "kababan." "Piper" fr. Grk. "piperi," Sanskrit "pippali," meaning to digest, i.e., helps digestion.—Berries are globular, 4–5 Mm. in diam.; blackish-gray; internally whitish & hollow; strong, spicy odor; arom., pung. taste.—*Constit.*: Volat. & fixed oil; cubebin,  $C_{10}H_{10}O_3$ ; cubebic acid,  $C_{28}H_{30}O_7.H_2O$  (Schulze),  $C_{13}H_{14}O_2$  (Schmidt); resin; fat; wax.—*Stim.*; Loc. Irrit.; Carmin.; Diuret.; Antiblenorrhoeic; Sedat.—*Uses*: Gonorr., leucorrh., bronchial catarrh, pharyng., acute urethritis, prostatitis, & nasal catarrh.—*Doses*: 10–60 grains (0.6–4 Gm.).—Aleoh. extr., 2–10 grains (0.12–0.6 Gm.).—Fld. extr., 10–60 ml (0.6–4 Cc.).—Oleoesc., 5–30 ml (0.3–2 Cc.).—*Tinet.*, 30–120 ml (2–8 Cc.).

**Cubebin Merck**

(500)

(Bitter substance fr. fruit *Piper Cubeba*, L. fil. (Cubebis).— $C_{10}H_{10}O_3$ , or,  $CH_2.O_2.C_6H_3.C_3H_4.OH$ .

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Esarine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

—Wh. cryst.—*Sol.* A, E, C.—*Melt.* 125° C.—Therapeutically inert.—“*Cubebine*” is the French designation for ether extract cubeb.

**Cubic Niter.**—see **Sodium Nitrate**

**Cuccati's Hematoxylin-Potassium Iodide**

0.75 Gm. hematoxylin, 6 Gm. alum, 25 Gm. potass. iodide, & 100 Cc. 75% A.—*Uses:* Staining nuclei, & whole masses

**Cucumber Tree.**—see **Magnolia Acuminata**

**Cucurbita Pepo.**—see **Pepo**

**Cudbear**

Color. matter fr. various lichens of genera *Lecanora* & *Rocella*.—Reddish powd.—*Sol.* A.—*Uses:* Techn.

**Culver's Root.**—see **Leptandra**

**Cumaric Anhydride.**—see **Cumarin**

**Cumarin Merck** (6)

(Coumarin; Tonka-Bean Camphor; Cumaric Anhydride).—Odorous prin. of tonka bean; artifly fr. salicylic aldehyde & sod. acet. w. acetic anhydride.— $C_9H_6O_3$ , or,  $C_9H_4O_3 \cdot CO_2H$ : CH.—Colorl. cryst.; pleas., fragr. odor; burn. taste.—*Sol.* 10 A., E., oils.—*Melt.* 67° C.—*Boil.* 290–291° C.—*Uses:* Flavoring agent for tobacco & butter; perfumery; “deodorizing” iodoform; lemonade (4 fl. dr. [15 Cc.] of a 1:200 acoh. solut. to a bot.).—A 1:200 solut. is also insecticide.—65 times the strength of prime Angostura Tonka bean.

**Cumene Merck.**—Highest Purity (35)

(Pseudocumol; Pseudocumene; Unsymmetrical Trimethylbenzene).—Fr. coal-tar.— $C_9H_{12}$ , or,  $C_6H_3(CH_3)_3$  [1:3:4].—Colorl. liq.—*Sol.* A., B.—Sp. Gr. 0.853 at 20° C.—*Boil.* 169.8° C.—*Uses:* Sterilizing catgut (by heat, 1 hour at 160° C.).

do.—Technical (2)

*Boil.* 160–170° C.—*Uses:* As of preceding.

**Cumidine (Pseudo-) Merck.**—Pure, cryst. (40)

(Aminoalphenyltrimethylbenzene).— $(CH_3)_3C_6H_2NH_2$ .—Wh. cryst.—*Sol.* A., E., C.—*Melt.* 70° C.—*Boil.* 234–235° C.

**Cumin**

(Cummin).—Fruit of *Cuminum Cyminum*, L. Umbellifera.—*Habit.*: Mediterranean region; northern Africa.—*Etymol.*: “*Cuminum*” fr. “*kamoun*,” the Arabic name of the plant. “*Cuminum*” is simply an altered form of the generic name, “*cuminum*.”—*Constit.*: Volat. & fixed oils; resin; proteids; malates.—*Carmin.*; *Stim.*; *Arom.*—*Uses:* Flavor; also cookery.—*Dose* 15–60 grains (1–4 Gm.).

**Cuminol Merck** (90)

(Cumine Aldehyde; Paracumine Aldehyde; Cumyl Hydride; Paraisopropylbenzoic Aldehyde).—Forms one of the constit. of oil fr. Roman chamomiles.— $C_{10}H_{12}O$ , or,  $(C_9H_4) \cdot (CH_3)_2CH \cdot CHO$ .—Yellowish oil; str., persistent

odor; acrid, burn. taste.—*Sol.* A., E.—Sp. Gr. 0.9832 at 0° C.—*Boil.* 237° C.

**Cumol.**—see **Cumene**

**Cumyl Hydride.**—see **Cuminol**

**Cundurango.**—see **Condurango**

**Cupreine**

Alkaloid fr. bark var. species *Remijia* (Cupren Bark).— $C_{19}H_{20}N_2O_2 + 2H_2O$ .—Colorl. cryst.—*Sol.* A.; sl. in E.—*Melt.* 198° C.

**Cupricalcium Acetate.**—see **Copper & Calcium Acetate**

**Cupro-hemol.**—see **Hemol, Cupro-**

**Cuprol** (25)

Compound of copper & nucleic acid fr. yeast.—6% Cu.—*Uses:* As succedaneum for copper sulphate.—*Appl.*, in aqueous solut. or in ointment in slow-healing ulcers.

**Curangin**

Glucoside fr. *Curanga amara*, Juss. *Screphulariaceae*.— $C_{48}H_{72}O_{20}$ .—*Sol.*, eas. A., hydrous acetone, & acetic ether.—Febrif.

**Curare Merck.**—Tested (712)

(Urari; Woorari; Woorali; Wourali; Tubocurare).—Native extr. (arrow-poison) fr. the bark of var. spec. of *Strychnos* (*Strychnos toxifera*, Benth., & *S. Castelniana*, Weid.).—*Habit.*: Orinoco, S. A.—Brown, intens. bitter mass.—*Sol.* W.; dil. A.—Paralyzes the ends of the motor nerves of the voluntary (striated) muscles.—Antitetan; Nervine, &c.—*Uses:* Hypoderm.; does not act through stomach. Antid. for hydrophobia & strychn., & in tetanus. Filter solut. before use.—*Dose*  $1/12$  grain (0.005 Gm.), 1 or 2 t. p. d., or until effect is noticed.—*Max. D.*  $1/3$  grain (0.02 Gm.) single; 1 grain (0.06 Gm.) daily.—*Antid.*, artif. respiration, strychnine subcut. ( $1/60$ – $1/12$  grain [0.001–0.005 Gm.]), & physostigmine intravenously.—*Caut.* Avoid getting it into cut or scratch, as it may prove fatal.

**Curarine**

(Tubocurarine).—Active alkaloidal const. of curare.— $C_{19}H_{26}N_2O$ .—Deliq., brown powd.—*Sol.* W., A.—Antitetan; Nervine; &c.—*Uses:* Reccom. in tetanus, hydroph., & severe convulsive affect.—*Inj.*  $1/120$ – $1/12$  grain (0.0005–0.005 Gm.).—Lethal dose for rabbits = 0.006–0.012 Gm. per kilo of body weight.—*Antid.*, strychn., atropine, artif. respir., & stim.—*Caut.* Very poisonous!

**Curcas**

(Purging-Nut; Physic-Nut; Barbadoes-Nut; Semen Ricini Majoris).—Seeds of *Jatropha Curcas*, L. *Euphorbiaceae*.—*Habit.*: West Indies; South America.—*Etymol.*: “*Curcas*” is the Malabar name of the plant. Lat. “*purgans*,” purging, i.e., the action of the drug. Grk. “*iatron*,” remedy, & “*phagein*,” to eat, referring

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



to the purgative action.—*Constit.*: Fixed oil (Oleum infernale) containing the very poisonous curcin, greatly resembl. ricin.—*Drastic Purgat.*—The tincture is used sometimes instead of the purgative fixed oil.

### Curcuma

(Turmeric; Indian Saffron).—Rhizome of *Curcuma longa*, L. Zingiberaceæ.—*Habit.*: China; East Indies; many tropical countries.—*Etymol.*: Indian "kurkum" fr. the Chaldaic "kurkam," the name of the plant.—Rhizome is 1-2 in. long, & about  $\frac{1}{2}$ -1 in. thick; externally yellowish-gray & annulate; internally orange-yellow; resinous fracture; ginger-like odor; warm arom. taste. Powd. is deep yellow, changed to brownish by alkalis & boric acid.—*Constit.*: Volat. oil; curcumin (coloring matter); starch; resin.—*Uses*: Hepatic Stim.; Tonic in jaundice; Condiment (as curry powd.).—*Tchn.*, as a color for ointments, solutions, &c. In chemical analysis for preparing curcuma test-paper (acids=yellow; alkalis=brownish-red; especially useful for boric acid).—*Doses*: Alcoh. extr., 1-5 grains (0.06-0.3 Gm.).—Fld. extr., 10-30 M (0.6-2 Ce.).—Tinct., 30-120 M (2-8 Ce.).

### Curcuma Paper

(Turmeric Paper).—Wh. paper, charged w. alcoh. solut. of yellow color fr. root *Curcuma longa*, L. & dried.—*Uses*: Indicator for caustic alkalis & alkaline earths (develop a reddish-brown color), acids, &c. Useful for detecting boric acid (brown color); other acids, bright sulphur-yellow color.—Limits of sensitiveness abt. 1:180,000 for KOH; and 1:35,000 for  $\text{NH}_3$ .

*Curcuma Zedoaria*.—see *Zedoaria*

### Curcumin Merck

(150)

(Turmeric Yellow).—Color. matter fr. root *Curcuma longa*, L.— $\text{C}_{10}\text{H}_{10}\text{O}_3$ .—Yellow, amorph. mass.—*Sol.* A., E., acetic acid, alkalis.—*Uses*: Indicator (borax & alkalis color the solut. brownish-red; acids, light-yellow).

do. Merck.—Cryst.

(450)

*Curled Mint*.—see *Crispmint*

*Cusparia*.—see *Angostura*

*Cusso*.—see *Kousso*

### Cutal

(Aluminum Borotannate).—React.-prod. tannic acid w. borax & aluminum sulphate.—76% tannin, 13.23% alumina, 10.71% boric acid.—Light-brown powd.—*Sol.*, dil. tartaric acid; insol. W.—Disinf.; Astring.—*Uses*: Extern., skin dis., chiefly.—*Appl.*, pure or attenuated, in oint. or as dust.-powd.

### Cutal Soluble

(Aluminum Borotannate).—Fr. Cutal w. tartaric acid.—*Sol.* W.—Astring.; Antisep.—*Uses*: Extern., skin diseases, gonorr., &c.—*Appl.*, in solut., like alumnol.

*Cuttle-fish Bone*.—see *Sepia*

### Cyanamide

(10)

(Normal Cyanamide).—Fr. any haloid cyanide, by amm. gas.— $\text{CH}_2\text{N}_2$  or,  $(\text{C:N})\text{NH}_2$ .—Wh., deliq., cryst. comp.—*Sol.* W., A., E.—*Melt.* 40° C.—*Caut.* Keep well stoppered.

### Cyanine Merck.—Cryst.

(500)

(Cyanine Iodide; Diamyleyanine Iodide; Quinoline, or Clinoline, Blue).—Color fr. quinoline & lepidine.— $\text{C}_{20}\text{H}_{15}\text{N}_2\text{I}$ .—Shin., monoc. prisms; green metal luster.—*Sol.* A. (deep blue color), warm W.—*Uses*: Indicator (but little used, as unreliable); in photography in natural colors.

### Cyanine Hydriodide Merck

(800)

$\text{C}_{20}\text{H}_{15}\text{N}_2\text{I.HI}$ .—Yellow need.—*Sol.* W.

*Cyanine Iodide*.—see *Cyanine*

*Cyanogen Iodide*.—see *Iodine Cyanide*

*Cyanus*.—see *Centaurea*

### Cyclamin Merck

(200)

Glucoside fr. roots *Cyclamen europæum*, L., & *Primula veris*, L.—Wh., amorph. powd.; intens. acid taste in short time. Solut's froth.—*Sol.* W., A.; hot G.—Emetic; Cath.

### Cydonia

(Quince Seed).—Seed of *Cydonia vulgaris*, Pers. Rosaceæ.—*Habit.*: Southern Asia; Europe; widely cultiv.—*Etymol.*: Named for "kydon," the town now known as Canca, in Crete, where the tree is abundant.—Seeds are abt.  $\frac{1}{4}$  in. long, ovate, triangular; brown color; covered w. whitish, mucilaginous epithelium; swell up in water.—*Constit.*: Amygdalin; fatty oil; mucilage (cydonin).—Demulcent.—*Uses*: Particularly in eye lotions.

### Cymene Merck (Not Cumene).—Fr. Camphor

(40)

(Cymol; Isopropyltoluene; Para-cymol; Paramethylpropylbenzene).—Fr. camphor by heat. w. phosph. anhydride.— $\text{C}_{10}\text{H}_{14}$ , or,  $\text{C}_6\text{H}_4(\text{CH}_3)\text{C}_4\text{H}_9$  [1:4].—Colorl., transp. liq.; arom. odor.—Sp. Gr. 0.8678 at 12° C.—*Sol.* A., C.—*Boil.* 175-176° C.

do. Merck.—Fr. Oil Cumin & other oils (35

Fr. volat. oil Cuminum Cuminum, L. (Cumin) & o. oils.—Ident. w. preceding.

*Cymene from Oil Turpentine*.—see *Methylpropylbenzene, Meta-*

*Cymol*.—see *Cymene*

*Cymophenol (Beta-)*.—see *Carvacrol*

*Cynanchum*.—see *Vincetoxicum*

### Cynoglossum

(Hound's Tongue; Gipsy Flower).—Whole plant, *Cynoglossum officinale*, L. Boraginaceæ.—*Habit.*: Europe; widely natur. in U. S.—*Etymol.*: Grk. "kyon," dog, & "glosse," tongue, referring to the form & soft texture of the lvs.—*Constit.*:

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatopine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

Fixed oil, resin, gum. Antispasmodic; Anodyne; Demulic; Astring.—*Uses*: Hysteria, catarrhal affect., diarr., hemorrhage, & spasmodic cough.—*Extern.*, in inflammations, contusions, &c.—*Doses*: Aqu. extr., 1-5 grains (0.06-0.3 Gm.).—*Fld. extr.*, 10-30 ℥ (0.6-2 Cc.).

*Cynosbata*.—see **Rosa Canina**

## **Cyperus**

(Antiemetic Root; Adruc; Guinea Rush).—Rhizome of *Cyperus articulatus*, L. *Cyperaceae*.—*Habit.*: Tropical regions.—*Etymol.*: Fr. "kypeiros," the ancient Grk. name for the plant.—Antiemetic; Stomachic.—*Uses*: To check vomiting of pregnancy, in yellow fever, indigestion, & atonic dyspep.—*Dose*: *Fld. extr.*, 10-30 ℥ (0.6-2 Cc.).

## **Cypripedin (Eclectic)**

(30

Extr. fr. conc. tinct. of root *Cypripedium pubescens*, Willd.—Brown powd.—*Sol.* A.—Nervine Stim.; Antispasmodic.—*Uses*: In neural. & hypochond.—*Dose*  $\frac{1}{2}$ -3 grains (0.03-0.2 Gm.).

## **Cypripedium.—U. S. P.**

(Lady's Slipper; American Valerian; Nerve Root; Yellow Moccasin Flower; Noah's Ark).—Dried rhizome & roots of *Cypripedium hirsutum* (pubescens, Willd.), Miller, & of *C. parviflorum*, Salisbury. *Orchidaceae*.—*Habit.*: Nova Scotia south to Alabama, & west to Nebraska & Missouri.—*Etymol.*: Lat. "Cypris," Venus, & "pes, pedis," foot, or Grk. "Kypri," Venus, & "pous, podos," foot, "podion," slipper, i.e., referring to the slipper-like form of the flower's lip. "Pubescens" Lat. for downy, hairy, refers to the downy or hairy stems, lvs., &c. "Parviflorum" refers to the flowers which are smaller than those of the preceding.—*Constit.*: Cypripedin; volat. oil; volat. acid; tannin; gallic acid; resins.—Nervine; Stim.; Antispasmodic; Analg.—*Uses*: Neuralg., hypochond., &c.—*Doses*: 10-30 grains (0.6-2 Gm.).—*Extr.*, 2-5 grains (0.12-0.3 Gm.).—*Fld. extr.*, 10-30 ℥ (0.6-2 Cc.).

*Cystamin.* } —see **Hexamethylenamine**  
*Cystogen.* }

## **Cytisine Merck**

(2500

(Ulexine; Sophorine; Baptitoxine).—Alkaloid fr. seeds of *Cytisus Laburnum*, L., & many o. *Papilionaceae*.—Considered to be identical w. ulexine fr. *Ulex europaeus*, sophorine fr. *Sophora speciosa*, & baptitoxine fr. *Baptisia tinctoria*.— $C_{11}H_{14}N_2O$ .—Colorl. to yellowish-wh. cryst.—*Sol.* W., A., E., B., C.—*Melt.* 152° C.—*Uses*: Medicinally, in form of its salts.—*Caut.* Poison!

## **Cytisine Hydrobromide**

Yellowish-wh. cryst.—*Sol.* W.—Diuretic.—*Uses*: Cardiac dropsy & strychnine poison.—*Dose*  $\frac{1}{20}$ - $\frac{1}{10}$  grain (0.003-0.006 Gm.).

## **Cytisine Hydrochloride Merck**

(1200

$C_{11}H_{14}N_2O.HCl$ .—Wh. cryst.—*Sol.* W., A.—Nervine, intermediate in action bet. strychnine

& curare.—*Uses*: Paral. migraine, whoop.-cough & asthma.—*Dose*  $\frac{1}{20}$ - $\frac{1}{12}$  grain (0.003-0.005 Gm.), usually subcut.

## **Cytisine Nitrate Merck**

(1200

$C_{11}H_{14}N_2O.(HNO_3 + 2H_2O)$ .—Yellowish cryst.—*Sol.* W.; sl. A.; in sol. E.—*Uses* & *Dose*: As of preceding.

## **Czokor's Alum-Cochineal**

Boil 1 Gm. cochineal w. 100 Cc. 1% solut. potassium alum until evaporated to 50 Cc., & add 0.5 Gm. carbolic acid.—*Uses*: Nuclear stain.

## **D**

*Dahlia*.—see **Gentian Violet B B B**

## **Dahlia Paper**

(Georgina Paper; Anthocyanin Paper).—Wh. paper, charged w. alcoh. solut. of color. matter of florets *Dahlia variabilis*, Desfontaines.—*Uses*: Indicator (acids = red; alkalies = green).

*Dahlin*.—see **Inulin**

*Daisy*.—see **Bellis**

## **Damar**

(Gum Damar; Dammar; Resin Damar).—Resinous exudate fr. *Shorea Wiesneri*, Schiffer, *Dipterocarpaceae*.—*Habit.*: East Indies; Philippines.—Yellowish-wh., roundish, or stalactite-shaped, friable masses; semi-transparent; conchoidal fracture; varying degrees of hardness.—*Sol.* A., C., E.; (CS<sub>2</sub>; conc. H<sub>2</sub>SO<sub>4</sub>; oil rosemary; oil turpent. (66%).—*Sp. Gr.* 1.04-1.12.—*Melt.*, abt. 120° C.—*Constit.*: Volat. oil; resins (alpha- & beta-); bitter subst'ce.—*Uses*: Techn., in plasters, varnishes, lacquers, &c.

## **Damiana**

Lvs. of *Turnera diffusa*, Willd., var. *aphrodisiaca* (Ward), Urb. *Turneraceae*.—*Habit.*: Texas to Lower California.—*Etymol.*: Plant named for Wm. Turner (1520-1568), author of an English "herbal." "Damiana" appears to be a coined name. "Aphrodisiaca" has reference to the aphrodisiac property of the plant.—*Constit.*: Volat. oil; resins (two); bitter principle; tannin; sugar; albuminoids; gum.—Aphrodisiac, Tonic & Diuret.—*Uses*: Sexual atony.—*Doses*: 30-120 grains (2-8 Gm.) in powd.—Alcoh. extr., 5-20 grains (0.3-1.3 Gm.).—*Fld. extr.*, 1-2 fl. dr. (4-8 Cc.).—*Tinct.*, 1-3 fl. dr. (4-12 Cc.).

*Dandelion*.—see **Taraxacum**

## **Daphnetin Merck**

(1000

(Dioxyeumarin).—By heat. pyrogallol, malonic acid & sulphuric acid; or by hydrolyzing daphnin, the glucoside fr. the bark of *Daphne Mezereum*.— $C_{11}H_6O_4$ , or, (OH)<sub>2</sub>C<sub>6</sub>H<sub>2</sub>O.CO.(ClH)<sub>2</sub>.—Yellowish-wh. cryst.—*Sol.* W., A., alkalies; sl. in E.—*Melt.* 253-256° C. w. decomp.

*Dark Green*.—see **Dinitrosoresorcinol**

*Date Plum*.—see **Diospyros**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Daturine Merck.**—True.—Pure, cryst. (855)  
Alkaloid fr. *Datura Stramonium*, L. Identical w. hyoscyamine; isomeric w. atropine (as stated by Ladenburg).— $C_{17}H_{23}NO_3$ .—Colorl. need.—*Sol.* A., E., C.—*Melt.* 106–108° C.—*Sedat.*; *Hypnot.*—*Uses:* Mania, epilepsy, neural., rheum., syph., cancer, pains, & spasm. asthma; hypn. to insane.—*Dose*  $1/_{230}$ – $1/_{60}$  grain (0.00025–0.001 Gm.).—*Antid.*, emetics, stomach siphon, castor oil, opium.—*Caut.* Poison!

**Daturine Hydrochloride Merck.**—True.—Pure (1000)  
 $C_{17}H_{23}NO_3 \cdot HCl$ .—Wh. cryst.—*Sol.* W., A.—*Uses & Dose:* As of daturine.

**Daturine Sulphate Merck.**—True.—Pure (855)  
 $(C_{17}H_{23}NO_3)_2 \cdot H_2SO_4$ .—Wh. cryst.—*Sol.* W., A.—*Uses & Dose:* As of daturine.

**Day Flower.**—see **Commelina**

**Deer's Tongue.**—see **Liatris**

**Degener's Indicator.**—see **Phenacetolin**

### **Delafield's Hematoxylin**

Mixt. solut. 4 Gm. hematoxylin in 25 alcob. w. satur. aq. solut. ammonium alum, 400 Cc. After sev. days' exposure to air & light, 100 Cc. each of glycerin & methyl alcohol are added.—*Uses:* Stain. nuclei intense blue; protoplasm pale blue.

**Delfs-Schwarzenbach's Reagent.**—For alkaloids  
Nitric acid & ammonia.—Certain alkaloids afford characteristic color reactions on treatment first w.  $HNO_3$ , & then w.  $NH_4OH$ .

**Delphinine Merck.**—Cryst. (6000)  
Alkaloid fr. seeds of *Delphinium Staphisagria*.— $C_{22}H_{35}NO_6$ .—Wh. cryst.—*Sol.* W., A., E., C.—*Melt.* 119° C.—Antineural. & Antispasm., like aconitine.—*Uses:* Facial neural., chronic rheum., convuls., palpit. of heart; pediculosis, &c.—*Dose*  $1/_{60}$  grain (0.001 Gm.), gradually increased to  $2/3$  grain (0.04 Gm.) per day, in pills (the aq. solut. soon decomposes).—*Appl.*, in 1–2% oint. or alc. solut.—*Antid.*, emetics, stomach siphon, stimulants.—*Caut.* Poisonous!

**do. Merck.**—Amorphous (750)

Amorph. alkaloid fr. seeds of *Delphinium Staphisagria*.—Yellowish powd.—*Sol.* C.

**Delphinium.**—see **Staphisagria**

### **Delphinium Consolida**

(Knight's Spur; Lark's-heel; Lark's-claw; Stag-gerweed; Flores Calceatrippa; Stavesacre).—Flowers & seed of *Delphinium consolida*, L. Ranunculaceae.—*Habit.*: Central Europe; cultivated in U. S.—*Etymol.*: Fr. Grk. "delphis," dolphin, i.e., form of nectary resembles imaginary figure of dolphin. Lat. "consolida," tailed, i.e., two spurs are combined in one.—*Constit.*: *Flowers:* Bitter extractive; tannin; blue pigment; acid principle.—*Seeds:* Calceatrine, volat. oil, gum, resin, fixed oil, gallic acid, &

aconitic acid.—Anthelmintic; Diuret.; Aperient; Emmenag.—*Uses:* *Flowers:* Dysent., cholera morbus, dropsy, gout, vesical affections & in vomiting of autumnal fevers.—*Seeds:* Dropsy, spasmodic asthma, & calculus.—Both flowers & seeds are used externally for pediculi.—*Dose:* *Flowers:* 60–120 grains (4–8 Gm.) in infus.—The extract is used in aqueous solut. in eye dis.—*Seeds:* Fld. extr., 1–5  $\eta$  (0.06–0.3 Cc.).—*Antid.*, stomach siphon, ammonia, digitalis, tannin, brandy, &c.

**Delphocurarine Merck** (3500)  
Alkaloidal subst'ce fr. *Delphinium scopolorum*.—Amorph., wh. powd.—*Sol.* W., A.—*Uses:* As of curare.

### **Denigés' Reagent.**—For acetone

Solut. 5 Gm. mercuric oxide in warm mixt. of 20 Cc. conc. sulphuric acid & 100 Cc. W.—On mixing equal vol. reagent & suspected solut., a cloudiness or ppt. forms if acetone present.

**Dermatol.**—see **Bismuth Subgallate**

### **Dermol**

(Bismuth Chrysophanate).— $Bi(C_{15}H_9O_4)_3 \cdot Bi_2O_3$  (Trojesen).—Yellow, amorph. powd.—*Sol.*, nitric or sulphuric acid; insol. ordinary solvents. Sicative Dermic.—*Uses:* Skin diseases.—*Appl.* 5–20% oint.

### **Derris**

(Aker Tuba).—Root of *Derris elliptica*, Benth. Papilionaceae.—*Habit.*: Java.—*Etymol.*: Fr. Grk. "derris," skin, i.e., the pod is covered with a pellicle.—*Constit.*: Derrid (accord to Greshoff; Tubain accord. to Wray); tannin; resin; derris-red (coloring matter).—*Uses:* Fish poison.

**Desoxyalizarin.**—see **Anthrarobin**

### **Deuteroalbumose Merck** (200)

Albuminoid product resulting fr. the conversion of primary albumoses into peptones.—Yellowish powd.—*Sol.*, cold & hot W.

**Devil's Bit.**—see **Succisa**

### **De Vrij's Reagent.**—For quinine

Alcoh. solut. quinoidine iodide.—The sulphuric-acid solut. of quinine alkaloids affords w. the reagent a brownish-red ppt. (herapathite; quinine iodosulphate).

### **Dextrin Merck.**—Highest Purity.—Precip. by alcohol (2)

Fr. starch, by dil. mineral acids, or diastase.— $(C_6H_{10}O_5)_x$ .—Whitish powd.—*Sol.* W.—*Uses:* Techn.—*Caut.* Keep dry, well stoppered.

### **do. Merck.**—Pure (1)

Dry, odorl. powd.—*Uses:* Substit. for gum acacia, & powd. licorice; also as excipient for dry extracts.—*Caut.* Keep dry, well stoppered.

### **do. Merck.**—Granulated (1)

(Gommelin).—Transp., yellowish lumps or gran.; conch. fracture.—*Uses:* Substit. for gum arabic; also in photography.—*Caut.* Keep dry.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Dextrin Merck.**—Technical, yellow & white (1 (Leicorin)).—*Uses:* Thickening mordants in printing fabrics in fast colors, reserves, & discharges; manuf. of paper for pastelle painting; printing tapes, etc.; preparing felt; manuf. printing rolls & printers' balls; inks, &c.

**Dextroalphapropylpiperidine.**—see **Coniine**

**Dextroglucose.**—see **Dextrose**

**Dextrose Merck.**—Highest Purity (3 (Glucose; Dextroglucose; Grape, Starch, Corn, or Honey, Sugar).—Fr. cane sugar, by inversion, and fr. starch & starchy subst., by action of mineral acids.—Wh. (anhydrous) powd.  $\text{C}_6\text{H}_{12}\text{O}_6$ , or  $\text{CH}_2\text{OH}(\text{CHOH})_4\text{CHO}$ .—*Sol.* W.—*Uses:* Chem. analysis.

do. **Merck.**—From Urine

Yellowish powd.

do. **Merck.**—Technical (1

Always contains some dextrin & unfermentable gallisin.—*Uses:* Manuf. wine (in Gall's method of improving acid wines, & in Petiot's process of making sugar-water wines); as surrogate for malt & honey (in baking); manuf. caramel; preparing tobacco; confectionery, &c.

**Dextrose Soxhlet-Merck** (25

Anhydrous, perfectly pure glucose.—Wh. powd., or snow-wh., cryst. crusts.—*Sol.* W.—*Uses:* Chem. analysis.

**Diacetanilide**

By heat. monoacetanilide w. glac. acetic acid to 200–250° C. & exhaust. prod. w. benzin.  $\text{C}_8\text{H}_9\text{N}(\text{CH}_3\text{CO})_2$ .—Colorl. leaflets.—*Melt.* 111° C.—Action similar to that of acetanilide.

**Diacetonamine Oxalate Merck** (40

(Normal Diacetonamine Oxalate).—Fr. acetone, by ammonia gas w. oxalic acid.— $\text{C}_{14}\text{H}_{28}\text{N}_2\text{O}_6$ , or  $(\text{NH}_4)_2\text{C}(\text{CH}_3)_2(\text{CH}_2\text{CO}_2\text{CH}_3)_2\text{C}_2\text{H}_4\text{O}_4$ .—Colorl. cryst.—*Sol.* W.; sl. in A.

**Diacetylmorphine Merck** (80

$\text{C}_{17}\text{H}_{17}\text{NO}(\text{C}_2\text{H}_3\text{O}_2)_2$ .—Wh., cryst., odorl., bitter powd.—*Sol.* in acidul. liquids, hot A., C., B.; diffie. E.; insol. cold W. & oils.—*Melt.* 173° C.—Cough-sedative; Antispasmodic.—*Uses:* Phthisis, bronchitis, asthma, &c.—*Dose*  $1/12$ – $1/6$  grain (0.005–0.01 Gm.).

**Diacetylmorphine Hydrochloride Merck** (80

$\text{C}_{17}\text{H}_{17}\text{NO}(\text{C}_2\text{H}_3\text{O}_2)_2\text{HCl}$ .—Wh., bitter powd.—*Sol.* A., 2 W.—*Melt.* 230–231° C.—Cough-sedative; Antispasmodic.—*Uses:* Phthisis, bronch., asth., &c.—*Dose*  $1/12$ – $1/6$  grain (0.005–0.01 Gm.).

**Diacetyltannin** (15

(Tannigen; Acetyltannin).— $\text{C}_{11}\text{H}_8(\text{COCH}_3)_2\text{O}_9$ .—Yellowish-wh., amorph., odorl., tastel. powd.—*Sol.* A., dil. solut. sod. phosphate, carbonate, or borate, & lime-water; sl. sol. hot W.; insol. cold W.—Intest. astringent.—Tannin com-

pound. decomposes only when reaching the intestines.—*Uses:* Intern., like tannin, in chronic diar., not in acute diar. of children & adults.—Extern., chronic pharyngitis.—*Dose* 3–8 grains (0.2–0.5 Gm.) 3 t. daily.—*Appl.* 3% solut. in 5% sod.-phosphate solut. in chron. pharyng.—*Mat. D.* 60 grains (1 Gm.) p. d.

**Diallyl Oxide.**—see **Allyl Oxide**

**Diallyl Sulphide.**—see **Allyl Sulphide**

**Dialuramide.**—see **Uramil**

**Diamidoazobenzene (or -zol) Hydrochloride.**—see **Chrysoidine Orange**

**Diamidobenzene (or -zol), Meta.**—see **Phenylene-diamine, Meta-**

**Diamidogen Sulphate.**—see **Hydrazine Sulphate**

**Diamidophenol.**—see **Diaminophenol Hydrochloride**

**Diamidophenylacridin, Asymmetric.**—see **Chrys-aniline Yellow, Basic**

**Diamine Sulphate.**—see **Hydrazine Sulphate**

**Diaminethane.**—see **Ethylenediamine Hydrate**

**Diaminophenol Hydrochloride Merck.**—Cryst. (13 (Amidol; Diamidophenol).—Fr. dinitrophenol.  $\text{C}_6\text{H}_6\text{N}_2\text{O}_2\text{HCl}$ , or  $\text{C}_6\text{H}_5(\text{NH}_2)_2\text{OH}\cdot 2\text{HCl}$ .—Grayish-wh. cryst.—*Sol.* W.; sl. in A.—*Uses:* Photo. developer.

**Diammonium Orthophosphate.**—see **Ammonium Phosphate, Dibasic**

**Diamond Green B.**—see **Malachite Green**

**Diamond Green G.**—see **Brilliant Green**

**Diamond Ink Merck** (5

(Etching Ink).—Mixt. of hydrofluoric acid w. enough barium sulphate to thicken it.—Milky wh. liq., w. a heavy sediment.—*Uses:* For etching glass.—*Caut.* Keep in gutta-percha, hard-rubber, or paraffin-paper bot.

**Diamyl Ether.**—see **Amyl Oxide**

**Diamylamine Merck** (140

(Diisoamylamine).—Fr. isoamylbromide & isoamylamine.— $\text{C}_{10}\text{H}_{23}\text{N}$ , or  $(\text{C}_5\text{H}_{11})_2\text{NH}$ .—Colorl. liq.—*Sp. Gr.* 0.7775 at 15° C.—*Sol.* A., E., C.; sl. in W.—*Boil.* 186–187° C.

**Diamylamine Hydrochloride Merck** (135

(Diisoamylamine Hydrochlorate).— $\text{C}_{10}\text{H}_{24}\text{NCl}$ , or  $(\text{C}_5\text{H}_{11})_2\text{NH}\cdot\text{HCl}$ .—Wh., cryst. powd.—*Sol.* W., A.

**Diamyleyanine Iodide.**—see **Cyanine**

**Diamylene.**—see **Dipentene**

**Dianthine G.**—see **Iodeosine G**

**Diaphoretic Antimony.**—see **Potassium Antimonate, Purified**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Diaphtol**

(Ortho-oxyquinolinemetasulphonic acid; Quinaseptol).—Fr. ortho-oxyquinoline by sulphuric acid. — $C_9H_7O_4SN$ , or,  $C_9H_5(OH)(SO_3H)N$ .—Yellowish-wh. cryst.—*Sol.* 35 boil. W.; sl. cold W.—*Melt.* 295° C.—Antisep. & Antiferm.—*Uses:* Intern., disinfect. urin tract; prevents decomp. of urine better than salol.

**Diastase (of Malt) Merck.**—Absolute (1:300) (50 Org. protein ferment in wheat & barley malt.—Yellowish-white to brownish-yellow, amorph. powd.—*Sol.* W.—Amylolytic.—*Caut.* Keep well stoppered.

**do. Merck.**—Medicinal (18

Mixt. of maltin w. abt. 25% milk sugar; 1 part dissolves 20 parts starch.—*Uses:* Aid to digest. starchy food.—*Dose* 1-3 grains (0.06-0.2 Gm.) several t. p. d., alone or w. pepsin.—*Caut.* Keep well stoppered.

**Diastase, Taka-** (40

(Koji).—Enzyme produced by action of Aspergillus Oryzae, Cohn, on moist rice.—Whitish-yellow, v. hygroscop. powd.; converts over 100 times its weight starch into maltose.—Amylolytic.—*Uses:* Faulty digestion of starch, digestive disturbances due to gout, hyperacidity, &c.—*Techn.*, preparation of the Japanese national drink "saké," & converting maize into sugar in manuf. whisky.—*Dose* 3-5 grains (0.2-0.3 Gm.) after meals.

**Diatercbinic Anhydride.**—see **Acid Terebic**

**Diaterpenic Anhydride.**—see **Acid Terpenylic**

**Diatheisin** (50

(Ortho-oxybenzylalcohol).— $C_7H_7O_2$ .—Fine leaflets; sl. bitter taste.—*Sol.* 15 cold W.; freely hot W., A.—*Melt.* 86° C.—Analges.; Antipyr.; Antirheum.—*Uses:* Articul. & muscul. rheum., neural., tonsillitis, pleurisy, &c.—*Dose* 8-15 grains (0.5-1 Gm.) 3-4 t. p. d.

**Diatomaceous Earth.**—see **Kieselguhr**

**Diazoamidobenzene Merck** (40

(Diazoamidobenzol; Diazobenzolanilide; Benzeneazoaniline).—Fr. alcoh. solut. aniline, by nitrous acid.— $C_{12}H_{11}N_3$ , or,  $C_6H_5N:N.NH.C_6H_5$ .—Golden-yellow scales.—*Sol.* E., B.; hot A.—*Melt.* 96° C.; explodes on heating.

**Diazobenzolanilide.**—see **Diazoamidobenzene**

**Dibenzoyl.**—see **Benzile**

**Dibenzoylhydrocotoin Merck** (100

Trimethylester of benzoylphloroglucinol.—Fr. paracoto bark.— $C_{22}H_{32}O_8$ .

**Dibromanthracene Merck** (50

(Alphadibromanthracene).—Fr. anthracene, by bromine.— $C_{14}H_8Br_2$ , or,  $C_6H_4.C_2Br_2.C_6H_4$ .—Yellow cryst.—*Sol.* C; sl. A., E.—*Melt.* 221° C.; sublimes undecomposed.

**Dibromethane.**—see **Ethylene Bromide**

**Dibromobenzene (or -zol), Para-**—see **Benzene, Dibromo-**

**Dibromoisobutane.**—see **Butylene, Iso-, Bromide**

**Dibromomethane.**—see **Methylene Bromide**

**Dibromopropane.**—see **Trimethylene Bromide**

**Dicalcium Orthophosphate.**—see **Calcium Phosphate, Dibasic**

**Dicentra.**—see **Corydalis**

**Dichinoxyldioxime.**—see **Dinitrosoresorcinol**

**Dichlorethane.**—see **Ethylene Chloride**

**Dichlorether Merck** (12

(Dichlorethyl Oxide).—Fr. ethyl ether by chlorination.— $C_2H_5Cl_2O$ , or,  $CH_3Cl.CHCl.O.C_2H_5$ .—Colorl. liquid.—*Sol.* A., E.—*Sp. Gr.* 1.174 at 23° C.—*Boil.* 140-145° C.

**Dichlorethyl Oxide.**—see **Dichlorether**

**Dichlorhydrin (Alpha-) Merck** (5

(Alphapropenyl Dichlorhydrin; Glycerin Dichlorhydrin; Dichloroisopropyl Alcohol).—Fr. glycerin w. hydrochloric acid gas & fract. distill'n.— $C_3H_6OCl_2$ , or,  $CH_2Cl.CH(OH).CH_2Cl$ .—Ether., colorl. liq.—*Sp. Gr.* 1.396 at 15° C.—*Sol.* A., E.; sl. in W.—*Boil.* 174° C.—*Uses:* Techn., & as a solvent for hard resins & nitrocellulose; manuf. photogr. lacquers & Zapon lacquer; cement for celluloid; manuf. water-colors.

**Dichlorisopropyl Alcohol.**—see **Dichlorhydrin, Alpha-**

**Dichlorobenzene (or -zol), Para-**—see **Benzene, Dichloro-, Para-**

**Dichlorobenzenesulphonamide (Para-) Merck.** (900

Cryst.— $C_6H_3Cl_2SO_2.NH_2$ .—Colorl. cryst.—*Sol.* W., A.

**Dichloromethane.**—see **Methylene Chloride**

**Dictamnus**

(Cretan Dittany).—Whole plant, Origanum Dictamnus, L. Labiate.—*Habit.*: Crete; Levant.—*Etymol.*: Fr. "Diete," the name of a Cretan mountain, where the plant grows profusely; & "thamos," shrub or bush. "Origanum," fr. Grk. "oros," mountain, & "ganos," beauty, referring to the handsome appearance & fine odor of many spec. of Origanum.—*Constit.*: Volat. oil.—*Uses:* In fomentations for scrofula.

**Dictamnus Albus**

(White Fraxinella; European Dittany; Bastard Dittany; Garden Ginger).—Root of Dictamnus albus, L. Rutaceae.—*Habit.*: Europe.—*Etymol.*: Same as preceding.—*Constit.*: Volat. oil; resin, bitter principle.—Antiepilep.; Antihysterie; Febrif.—*Dose* 20-60 grains (1.3-4 Gm.).

**Didymium.**—By Electrolysis.—Fused (10000

Metal.—Di.—*Etymol.*: Fr. the Grk. "didymoi," twins; so named by its discoverer, Mosander,

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



- in 1842, because it occurs always with lanthanum in cerit, together with cerium—Mixt. of praseodymium & neodymium; freed so far as possible fr. lanthanum—Wh. metal—Sp. Gr. 6.544—Oxidiz. in air & burns in flame w. much light.—*Sol.*, dil. min. acids.
- Didymium Carbonate Merck** (250)  
 $\text{Di}_2\text{CO}_3 + 6\text{H}_2\text{O}$ .—Reddish-wh. powd.—*Sol.*, dil. mineral acids; insol. W.
- Didymium Chloride Merck** (250)  
 $\text{Di}_2\text{Cl}_6 + 12\text{H}_2\text{O}$ .—Large, violet-red, monosymmetr. cryst.—*Sol.*, eas. W., A.—Decomp. by heat.—*Caution*. Keep dry.
- Didymium Nitrate Merck** (110)  
 $\text{Di}_2(\text{NO}_3)_6 + 12\text{H}_2\text{O}$ .—Large, violet-red asymmetr. cryst.—*Sol.*, eas. W., A.
- Didymium Oxide Merck.—Anhydrous** (210)  
 $\text{Di}_2\text{O}_3$ .—Grayish powd.—*Sol.*, eas. dil. min. acids; insol. W.
- Didymium Sulphate Merck** (180)  
 $\text{Di}_2(\text{SO}_4)_3 + 6\text{H}_2\text{O}$ .—Violet-red cryst.—*Sol.*, diff. W.; insol. A.
- Didymium Sulphide Merck** (200)  
 $\text{Di}_2\text{S}_3$ .—Greenish-brown powd.—Decomp. in moist air.
- Diethideneammonium Thiocarbamate.**—see **Carbothialdine**
- Diethyl Oxalate.**—see **Ethyl Oxalate**
- Diethyl Succinate.**—see **Ethyl Succinate**
- Diethyl Succinate, Monobromated.**—see **Ethyl Monobromosuccinate**
- Diethyl Sulphate Merck** (40)  
 $(\text{OC}_2\text{H}_5)_2\text{SO}_2$ .—Colorl. liq.—*Sol.* A., E.—Sp. Gr. 1.185 at 15° C.—*Boil.* 208° C. without decomposition.
- Diethyl Sulphide.**—see **Ethyl Sulphide**
- Diethyl Truxillate.**—see **Ethyl Truxillate, Alpha-**
- Diethylacetal.**—see **Acetal**
- Diethylaldehyde.**—see **Acetal**
- Diethylamine Merck** (110)  
 By dil. potass. hydroxide on dinitrodiethylaniline. — $\text{C}_4\text{H}_{11}\text{N}$ , or,  $(\text{C}_2\text{H}_5)_2\text{NH}$ .—Volat., colorl., inflamm., str'ly alkali. liq.—*Sol.* A., W.—Sp. Gr. 0.710 at 15° C.—*Boil.* 56° C.
- do. Merck.—33% Solut. (50)
- do. Merck.—Fr. Nitrosodiethylene (280)
- Diethylamine Hydrochloride Merck** (65)  
 $\text{C}_4\text{H}_{12}\text{NCl}$ , or,  $(\text{C}_2\text{H}_5)_2\text{NH.HCl}$ .—Colorl. cryst.—*Sol.* W., A., C.—*Melt.* 215–217° C.
- Diethylaniline Merck.**—Pure (6)  
 Fr. ethylaniline, by ethyl bromide.— $\text{C}_6\text{H}_5\text{C}_2\text{H}_5$ —
- $\text{C}_6\text{H}_5\text{N}$ .—Yellowish to brownish liq.—*Sol.* A., L., C.—Sp. Gr. 0.936 at 15° C.—*Boil.* 213.5° C.
- Diethylaniline Merck. Commercial** (3)
- Diethylbromacetamide.**—see **Neuronal**
- Diethylenediamine.**—see **Piperazine**
- Diethylglycolglycinaiacol Hydrochloride.**—see **Gujasanol**
- Diethylglycolparamido-o-xybenzoylmethyl ester Hydrochloride.**—see **Nirvanin**
- Diethylidene Dithiocarbamate.**—see **Carbothialdine**
- Diethylketone Merck** (110)  
 (Methacetone; Propione; Ethylpropionyl).—By distil. sugar w. excess of lime.— $\text{C}_5\text{H}_8\text{C}_2\text{H}_5\text{CO}$ .—Colorl., mobile liq.; acetone odor.—*Sol.* A., E.—*Boil.* 101° C.—Hypn.—*Uses*: Maniacal excit., melancholia with stupor & hysteria.—*Doses*: Hypnot., S ℥ (0.5 Ce.); in mania, 25–45 ℥ (1.5–3 Ce.).
- Diethylmalonylurea.**—see **Veronal**
- Diethylmeta-amidophenolphthalein.**—see **Rhodamine B**
- Diethylnitrosamine.**—see **Nitrosodiethylene**
- Diethyloxamide Merck.—Symmetrical** (200)  
 $\text{C}_6\text{H}_{12}\text{N}_2\text{O}_2$ .—Wh. cryst.—*Sol.*, hot W., & A.—*Melt.* 175° C.
- Diethylsulphonedimethylmethane.**—see **Tetronal**
- Diethylsulphonedimethylmethane.**—see **Sulfonal; Sulphonmethane**
- Diethylsulphonemethylethylmethane.**—see **Sulphonethylmethane; Trional**
- Difluordiphenyl** (150)  
 Organic fluorine compound.— $\text{C}_6\text{H}_4\text{F.C}_6\text{H}_4\text{F}$ .—Colorl., cryst. powd.; arom. odor.—*Sol.*, eas. A., E., C., oils; insol. W.—*Melt.* 87° C.—Sp. Gr. 1.04.—*Antisept.*—*Uses*: As dusting powd., pure, or in 10% oint. or w. talcum in cutan. dis.
- Digitalein Merck** (450)  
 Glucoside fr. lvs. Digitalis purpurea, L.—Wh., amorph. powd.; intens. bitter taste.—*Sol.* W., A.—Heart poison.
- Digitalin Crystallized Merck** (798)  
 (Digitonin; Digitin).—Glucoside fr. lvs. Digitalis purpurea, L.— $\text{C}_{27}\text{H}_{46}\text{O}_{14} + 5\text{H}_2\text{O}$ .—Coarsely granul., cryst. powd.; decomp. above 235° C., without melting sharply.—*Sol.*, mixt. of A. & C.; sl. in A.; alm. insol. W., E., C.—Optically levogyrate.—No physiolog. action on heart.
- Digitalin "French" Merck.**—(French & Belg. Pharm.)—Pure, amorph.—Compl. solub. in Chloroform (1100)  
 (Chloroformic, or Homolle's Amorphous, Digitaline; Digitalinum Gallicum).—Fr. Digitalis

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



purpurea, L.—Consists chiefly of an amorph. glucoside resembling digitoxin in action.—Yellowish, odorl., bitter powd.—*Sol.* A., C., 2000 W.—*Uses, Antid., &c.*: As of digitoxin.—*Dose*  $\frac{1}{250}$  grain (0.00025 Gm.), rapidly increased until  $\frac{1}{40}$  grain (0.0015 Gm.) is taken daily.—*Max. D.*  $\frac{1}{30}$  grain (0.002 Gm.).

**Digitalin "German" Merck.**—Pure, powd. (140 Fr. Digitalis purpurea, L.—Mixt. of digitalin (Kiliani), amorph. digitonin, & digitalein; on boil. w. dil. acids, is split up into digitalose, digitaligenin, digitogenin, & amorph. cleavage products.—Yellowish-wh. powd.—*Sol.* W., A.; alm. insol. E., C. — Non-cumulative Heart Tonic; Diur.—*Uses*: As of digitalis; welladapted for inj.—*Dose*  $\frac{1}{10}$ – $\frac{1}{2}$  grain (0.006–0.03 Gm.) 3 or 4 t. p. d., in pills, tabl., or subcut.—*Antid., emetics, stom. siphon, tannic acid, saponin, nitroglycerin, morphine early, strophanthin later, alcoholic stimulants, camphor, mustard plaster, &c.*—*Caution*. Poison!

*Note.*—Digitalin "German" Merck is declared by competent authorities to be the most reliable digitalis preparation because its effects are always certain & uniform, and particularly because it is free from cumulative action.

**Digitaline, Chloroformic, or Homolle's.**—see Digitalin, "French"

**Digitalis.**—U. S. P.

(Foxglove; Purple Foxglove; Fairy Gloves).—Dried lvs. of Digitalis purpurea, L. Scrophulariaceae, collected fr. plants of second year's growth, at commencement of flowering.—*Habit.*: Southern & central Europe; cultiv. in U. S.—*Etymol.*: Fr. Lat. "digitus," finger, i.e., the finger-shaped corolla; named by Fuchs in 1542. Purpurea, fr. L. "purpureus," purple, i.e., the flowers are purple. "Foxglove," corruption of Folk's glove, fr. "Folk," synonym of Fairies.—*Constit.*: Digitoxin; digitonin; digitalin; digitaleic acid(?); antirrhineic acid; digitalosmin; digitoleic acid; digitoflavon; resin; extractive; inosit; pectin.—*Cardiac Tonic; Vasc. Stim.; Diuret.; Anaphrodis.; Sedat.; Narcot.*—*Uses*: Cardiac diseases, pulm. edema, dropsy, &c.—*Doses*: 1–2 grains (0.06–0.12 Gm.) in powd. or infus.—*Alcoh. extr.*,  $\frac{1}{4}$ –1 grain (0.015–0.06 Gm.); *Max. D.* 2 grains (0.12 Gm.) single, 5 grains (0.3 Gm.) daily.—*Fld. extr.*, 1–3  $\mathfrak{m}$  (0.06–0.2 Ce.); *Max. D.*, 5  $\mathfrak{m}$  (0.3 Ce.) single, 15  $\mathfrak{m}$  (1 Ce.) daily.—*Tinct.*, 5–30  $\mathfrak{m}$  (0.3–2 Ce.).—*Antid.*: As of Digitalin, "German."

**Digitalis Juice Merck** (3

Fr. fresh lvs. Digitalis purpurea, L.; preserv. w. alc.—Dark green.—Heart Stim.; Diur.—*Uses*: Weak or irreg. heart.—*Dose* 3–10  $\mathfrak{m}$  (0.2–0.6 Ce.).—*Antid.*, as of Digitalin, "German."

**Digitalon**

Alcohol-free, aseptic solut. of digitalis constituents.—*Dose* 8–15  $\mathfrak{m}$  (0.5–1 Ce.) hypoderm.

*Digitin.* } —see Digitalin, Crystallized  
*Diglonin.* }

**Digitoxin Merck** (13110

Most active glucoside fr. Digitalis purpurea, L.— $C_{28}H_{46}O_{10}$ .—Wh., cryst. powd.; on boil. w. dil. acids, it decomposes into digitoxose,  $C_6H_{12}O_4$ , & digitoxigenin,  $C_{22}H_{32}O_4$ .—*Sol.* A., C., & also in a mixt. of 333 Ce. glycerin (Sp. Gr. 1.25), 147 Ce. W., & 95% alcohol enough to bring the whole to a Sp. Gr. 1.000 (1 Gm.=50 drops); sl. sol. in E.; insol. W.—Most prompt, reliable, powerful Heart Tonic, of uniform chem. compos. & therapeutic activity; perfect substitute for digitalis & all other digitalin preparations.—0.001 Gm. digitoxin is equal in effect to 1 Gm. digitalis herb.—*Uses*: Valvular lesions, myocarditis, &c.—*Doses*:  $\frac{1}{240}$ – $\frac{1}{60}$  grain (0.00025–0.001 Gm.) 3 t. daily, with 3  $\mathfrak{m}$  (0.2 Ce.) C., 60  $\mathfrak{m}$  (4 Ce.) A.,  $\frac{1}{2}$  fl. oz. (45 Ce.) W.—*Enema*,  $\frac{1}{80}$  grain (0.0008 Gm.) with 10  $\mathfrak{m}$  (0.6 Ce.) A., 4 fl. oz. (120 Ce.) W., 1 to 3 t. daily.—*Max. D.*:  $\frac{1}{30}$  grain (0.002 Gm.) single;  $\frac{1}{15}$  grain (0.004 Gm.) daily.

**do. Merck.**—Compressed Tablets

Each contains  $\frac{1}{240}$  grain (0.00025 Gm.).—*Uses*: In enema, according to Wenzel-Unverricht, & also intern., like digitoxin.—*Dose* 1 tabl. every 3 hrs., or 3–4 t. p. d.; for enema, dissolve 1–2 tabl. in abt. 15  $\mathfrak{m}$  (1 Ce.) A., & add  $\frac{3}{4}$  fl. oz. (100 Ce.) luke-warm W.

**Dihydroresorcinol**

Fr. resorcinol, by sod. amalgam w. carbon dioxide.—Shin., wh. prisms.—*Sol.* W., A., C.; v. sl. E., carbon disulphide, ligroin.—*Melt.* 104–106° C.—Antiseptic.—Clinical data lacking.

**Dihydroxyanthraquinone.**—see Alizarin

**Dihydroxyphthalophenone.**—see Phenolphthalein

**Diiodaniline Merck** (110  
(Metadiodoaniline).— $C_6H_3I_2.NH_2[4:2:1]$ .—Shining, brown cryst.—*Sol.* E., C., hot A., acetic ether, carbon disulphide.—*Melt.* 96° C.—Antisept.; Dermic.—*Uses*: Extern., skin dis.

**Diiodobetanaphthol.**—see Iodonaphthol

**Diiodocaffeine.**—see Caffeine Triiodide

**Diiododithymol.**—see Thymol Iodide

**Diiodoethane.**—see Ethylene Iodide

**Diiodoform Merck** (85

(Ethylene Tetraiodide, or Periodide; Iodethyl-ene).—Fr. acetylene iodide (carbon biniodide), by excess of iodine.— $C_2I_4$ .—95.28% iodine.—Fine, yellow need.; odorl., w. charact. odor on expos. to light.—*Sol.* C., B., toluene,  $CS_2$ ; sl. in A., E.; insol. W.—*Melt.* 187° C.—Antisept.—*Uses*: Inst. of iodoform.—*Caution*. Keep in the dark.

**Diiodohydroxypropane.**—see Iothion

**Diiodomethane.**—see Methylene Iodide

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyanine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Diisododecylglycolic-acid Methyl-ester.*—see **Sanoform**

*Diisooxamylamine.*—see **Diamylamine**

**Diisobutylamine Merck** (115)  
 $(C_4H_9)_2NH$ .—Colorl. liq.—*Sol.* A., E., C.—*Boil.* 135–137° C.

*Diisopropylideneacetone.*—see **Phorone**

*Dill.*—see **Anethum**

*Dimaesium Phosphate.*—see **Magnesium Phosphate**

*Dimethyl Carbonate.*—see **Methyl Carbonate**

**Dimethyl Sulphate Merck** (7)  
 $SO_2(OCH_3)_2$ .—Colorl. liq.—*Sol.* A., E.—*Sp. Gr.* 1.333 at 15° C.—*Boil.* 188° C.—*Uses:* As alkylizer in organ. chemistry—*Caut.* The vapors are poisonous! The preparation has a powerfully caustic action on the skin.

*Dimethyl Sulphide.*—see **Methyl Sulphide**

**Dimethylacetal Merck** (50)  
 (Ethylidenedimethylester).—Fr. aldehyde, methyl alc., & glacial acetic acid, by heat.— $C_4H_{10}O_2$ , or,  $CH_3CH(OCH_3)_2$ .—Colorl. liq.—*Sol.* W., A., E., C.—*Sp. Gr.* 0.879 at 0° C.—*Boil.* 62–63° C.—*Anesth.* *Uses:* Inst. of chloroform.

**Dimethylamidoazobenzene Merck.**—Highest Purity (25)

(Butter Yellow).—Deriv. of dimethylaniline.— $C_{14}H_{15}N_3$ , or,  $C_6H_5.N_2.C_6H_4N(CH_3)_2$ .—Sm., yellow plates.—*Sol.* A., str. mineral acids, oils.—*Melt.* 115° C.—*Uses:* Indicator in alkalimetry; fat color, partic. for identifying margarine.—The yellow solut. is reddened by acids.

do. Merck.—Purified (7)

**Dimethylamidoazobenzene Sulphonate Merck** (15)  
 (Sulphobenzenediazodimethylaniline).— $SO_3H.C_6H_4.N_2.C_6H_4N(CH_3)_2$ .—Violet cryst. or powd.—*Sol.* A.; sl. W.—*Uses:* As starting point in manuf. helianthine & related dyes constituting the various salts of this acid.

**Dimethylamine Merck.**—Anhydrous (900)  
 Fr. methyl iodide, by ammonia.— $C_2H_7N$ , or,  $(CH_3)_2NH$ .—Gaseous at ordin. temp.—*Sol.* W.—*Boil.* 7.2° C.—Occurs in compressed form in tubes, & also in aqu. solut.

do. Merck.—33  $\frac{1}{3}$ % Solution (85)

Aqu. solut.—Colorl. liq.—*Misc.*, w. W. & A.

**Dimethylamine Hydrochloride Merck** (125)  
 $(CH_3)_2NH.HCl$ .—Wh., deliq., cryst. scales.—*Sol.* A., W.—*Melt.* 168° C.—*Caut.* Keep fr. air.

*Dimethylaminoantipyrine.*—see **Pyramidon**

*Dimethylaminoantipyrine-butylchloralhydrate.*—see **Trigemin**

*Dimethylaminobenzoylpentanol Hydrochloride.*—see **Stovaine**

**Dimethylaniline Merck.**—Mono-free (4)  
 React. prod. aniline hydrochloride w. aniline & methyl alc.— $C_6H_5N$ , or,  $C_6H_5N(CH_3)_2$ .—Yellowish to brownish oily liq.; free fr. monomethylaniline.—*Sol.* A., E., C.—*Sp. Gr.* 0.957 at 20° C.—*Boil.* 193° C.—*Uses:* Technical.

*Dimethylaniline Orange.*—see **Methyl Orange**

*Dimethylbenzene* (or -zol).—see **Xylene**

*Dimethylcarbinolchloroform.*—see **Methaform**

*Dimethylthylcarbinol.*—see **Amylene Hydrate**

*Dimethylthylcarbinolchloral.*—see **Dormiol**

*Dimethylthylene Bromide, Symmetrical.*—see **Butylene (Beta-) Bromide**

**Dimethylglyoxime Merck.**—Reagent (600)  
 (Alphadimethylglyoxime).— $CH_3C(=N.OH)C(=N.OH).CH_3$ .—Wh. cryst.—*Sol.*, eas. A., E.; diffie. W.—*Melt.* 240° C.—*Uses:* Exceed. sensit. reagent for nickel (scarlet-red ppt.).—Sensitive to over 1,400,000. Capable of detect. Ni in presence of 5,000 times its wt. cobalt.

**Dimethylhydroquinone** (50)  
 (Dimethyl Ester of Hydroquinone; Quinoldimethyl Ester).—By boil. hydroquinone under press. w. potass. hydroxide & methyl iodide, diss. in methyl alc.— $C_8H_{10}O_2$ , or,  $C_6H_4(OCH_3)_2$ .—Large cryst. plates.—*Melt.* 56° C.

*Dimethylketone* (or -ketal).—see **Acetone**

*Dimethylnitrosamine.*—see **Nitrosodimethylin**

**Dimethylorthotoluidine Merck** (10)  
 $C_9H_{13}N$ , or,  $C_6H_4.CH_3.N(CH_3)_2[2:1]$ .—Colorl. liq.—*Sol.* E., C.—*Sp. Gr.* 0.932 at 15° C.—*Boil.* 183° C.

**Dimethylloxamide Merck** (250)  
 Fr. methylamine by oxalic ether.— $C_4H_8N_2O_2$ , or,  $C_2O_2(NH.CH_3)_2$ .—Wh. cryst.—*Sol.*, hot W., A.—*Melt.* 210° C.

*Dimethyloxyquinizine.*—see **Antipyrine**

**Dimethylparaphenylenediamine Merck** (250)  
 (Paramidodimethylaniline).—Fr. helianthine (Orange III), by treat. w. W. & fresh amm. sulphide w. heat.— $C_8H_{12}N_2$ , or,  $C_6H_4.NH_2.N(CH_3)_2$ .—Brown, cryst. mass.—*Sol.* A., E., C.—*Uses:* Reagent for lignin.

**Dimethylparaphenylenediamine Hydrochloride Merck** (140)

Fr. dimethylparaphenylenediamine by dil. HCl.— $C_8H_{12}N_2.N(CH_3)_2.HCl$ .—V. deliq. cryst.—*Sol.*, eas. W.; sl. A.

**Dimethylparaphenylenediamine Paper**

(Wurster's Ozone Paper [Red]).—Unsized, wh. paper, charged w. para-amidodimethylaniline; used with color scale.—*Uses:* To detect ozone (bluish-violet color), hydrogen sulphide, rosin, turpentine, &c.; & wood pulp in paper.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Dimethylparaphenylenediamine Sulphate Merck.**  
—Cryst. (150)

$C_6H_4.NH_2.N(CH_3)_2.H_2SO_4$ .—Colorl. to brownish cryst.—*Sol.* W.

**Dimethylparatoluidine Merck** (10)

Fr. paratoluidine hydrobromide, by methyl alc. w. heat.— $C_6H_4H_3N$ , or  $C_6H_4.CH_3.N(CH_3)_2$  [4:1].—Colorl. liq.—*Sol.* E., C.—*Sp. Gr.* 0.938 at 15° C.—*Boil.* 208–210° C.

**Dimethylphenylpara-ammoniumbetaoxynaphth-oxazine Chloride.**—see **Mukogen****Dimethylpiperazine.**—see **Lupetazin****Dimethylpiperazine Tartrate.**—see **Lycetol****Dimethylpyridine.**—see **Lutidine****Dimethylresorcinol Merck** (95)

(Resorcinoldimethylester).— $C_6H_4O_2$ , or  $C_6H_4-(OCH_3)_2$ .—Pale-red liq.—*Sol.* A., E.—*Sp. Gr.* 1.086 at 15° C.—*Boil.* 214° C.

**Dimethylsafranine Chloride.**—see **Methylene Violet****Dimethylthiourea Merck** (10)

(Dimethylsulphourea).—From methylthiocarbamide, w. methylamine.— $CS(NHCH_3)_2$ .—Thick, syrupy liq., or very deliq. cryst.—*Sol.* W., A., C.; sl. E., B.—*Melt.* 51° C. (cryst.).

**Dimethylxanthine.**—see **Theobromine**; **Theophyllin****Dinitroamidophenol.**—see **Acid Picramic****Dinitrobenzene (Meta-) Merck.**—Pure (6)

(Metadinitrobenzene[or, -zol]).—Fr. benzene, by  $H_2SO_4$  &  $HNO_3$  w. heat.— $C_6H_4N_2O_4$ , or  $C_6H_4-(NO_2)_2$  [1:3].—Yellow cryst.—*Sol.* A.—*Melt.* 90° C.—*Boil.* 297° C.—*Uses:* Manuf. metaphenylenediamine.

**do. Merck.**—Commercial (1)**Dinitronaphthalene (Alpha-) Merck** (12)

$C_{10}H_6N_2O_4$ , or  $C_{10}H_6(NO_2)_2$ .—Fine, yellow, cryst. need.—*Sol.* B., xylene, C., hot A.—*Melt.* 153° C.

**Dinitrophenol Merck** (25)

(Alphadinitrophenol).—Fr. paranitrophenol, by strong nitric acid & heat.— $C_6H_4N_2O_6$ , or  $C_6H_3(NO_2)_2OH$  [2:4:1].—Yellow tables.—*Sol.*, hot A.—*Melt.* 113–114° C.

**Dinitroresorcinol Merck** (300)

(Dinitroresorcin).—Fr. dinitroresorcinol in ether. solut., by nitrogen trioxide.— $C_6H_4N_2O_6 + 2H_2O$ , or  $C_6H_2(NO_2)_2(OH)_2 + 2H_2O$ .—Brownish-yellow cryst.—*Sol.* A., C.; sl. W.—*Deflag.* at 115° C.

**do. Merck.**—Paste (5)

(Dark Green; Solid Green O Paste; Chlorin; Dichinoyldioxime).— $C_6H_2(NO_2)_2O_2$ .—Grayish-brown mass.—*Sol.* A.; dil. alkalies; sl. W.—*Uses:* Techn., dyeing fabrics mordanted w. iron a green color.

**Dinitrotoluene Merck.**—Pure, cryst. (7)

(Dinitrotoluol).—Fr. toluene, by nitration.— $C_7H_7N_2O_4$ , or  $C_6H_5.CH_3(NO_2)_2$  [1:2:4].—Yellow cryst.—*Sol.*, hot A.—*Melt.* 70° C.

**do. Merck.**—Techn. (2)**Dionin** (120)

(Ethylmorphine Hydrochloride Merck).— $C_{12}H_{25}NO_3.HCl + 2H_2O$ .—Wh., cryst., faintly bitter powd.—*Sol.*, abt. 7 W., 2 A., 20 syrup; insol. E., C.—*Sedat.*; Antispasm.; Analges.; Ocular Lymphagogue. Reported to produce neither constipation, nausea, lassitude, nor tolerance. Efficient succedaneum for morphine & codeine.—*Uses:* Intern., phthisis, chron. bronchitis, emphysema, asthma, morphinomania, painful affections, insomnia, laryngitis, influenza, pneumonia, whooping-cough.—*Extern.*, corneal affect., dry & chron. conjunctival catarrh, iritis, opacity of vitr. humor.—*Doses:*  $\frac{1}{4}$ – $\frac{1}{2}$  grain (0.015–0.03 Gm.) 2–3 t. p. d., in tabl., pill, or solut.; at evening,  $\frac{1}{2}$ – $\frac{3}{4}$  grain (0.03–0.05 Gm.).—*Inf.* in morphinism, 1–2 grains (0.06–0.12 Gm.) single; 3–15 grains (0.2–1 Gm.) p. d.—*Extern.*, (eye diseases) 1–2 drops of 5–10% solut.; (in gynecol.)  $\frac{2}{3}$  grain (0.04 Gm.) in suppos. w. 30 grains (2 Gm.) cacao butter.—*Max. D.*, (except in morphinism)  $\frac{1}{3}$  grains (0.08 Gm.) single; 5 grains (0.3 Gm.) daily.—*Antid.*, same as for morphine & codeine.

*Note.*—Marketed also in tablets ea. cont.  $\frac{1}{4}$  grain (0.015 Gm.).

**Dioscorea**

(Wild Yam; Colic Root; Rheumatism Root).—Root of *Dioscorea villosa*, L. *Dioscoreaceae*.—*Habit.*: North America.—*Etymol.*: Named for the celebrated Grk. naturalist Dioscorides, by Anazarba, of Sicily. D. lived in the first century A.D.—*Constit.*: Saponin; acrid resin.—Antirheumat.; Antispasm. (in bilious colic); Diaphor.; Expector.; Uterine Tonic.—*Doses:* 15–120 grains (1–8 Gm.).—*Fld. extr.*, 15–60 m (1–4 Cc.).

**Dioscorein** (20)

Resinoid fr. *Dioscorea villosa*, L. (Wild-Yam Root).—Brown, bitter powd.—*Sol.* A.—*Uses:* Bilious colic & rheum.—*Dose* 1–4 grains (0.06–0.25 Gm.).

**Diosma.**—see **Buchu****Diospyros**

(Persimmon; Date Plum).—Bark and unripe fruit of *Diospyros virginiana*, L. *Ebenaceae*.—*Habit.*: U. S. (Rhode Island to Florida & west to Texas & Kansas).—*Etymol.*: “*Diospyros*,” fr. Grk. “Zeus,” wheat, referring to the use of the fruit as an edible. “*Virginiana*” refers to its habitat.—*Constit.*: A cryst. subst’ce,  $C_{30}H_{67}O_{10}$ .—*Astring.*; Tonic; Antiper.; Hemostat.—*Uses:* Dysent., diarrh., intermitt. fever, & uterine hemor.—*Dose* 30–60 m (2–4 Cc.) of fld. extr.

**Dioxyanthranol.**—see **Anthrarobin****Dioxyanthraquinone.**—see **Alizarin**

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Dioxycumarin.*—see **Daphnetin**  
*Dioxyquinoline.*—see **Quinoline-hydroquinone**  
*Dioxytoluene.*—see **Orcin**  
*Dioxytriphenylphthalide.*—see **Phenolphthalein**  
*Dipara-anisylmonophenetylguanidine Hydrochloride.*—see **Acoin**

**Dipentene Merck** (110)  
 (Diamylene; Cinene, Inactive Limonene; Dipentene; Cajeputene; Kautschin).— $C_{10}H_{18}$ .—Occurs in various ethereal oils, particularly in oil Wormseed (Levant), together w. cineol.—Colorl. liq.; pleasant, lemon-like odor.—*Misc.*, A.—Sp. Gr. 0.772 at 15° C.—*Boil.* 175° C.

*Dipentene Dihydrochloride.*—see **Terpene Dihydrochloride**

*Dipentene Hydriodide.*—see **Terpene Hydriodide**

*Dipentenglycol.*—see **Terpin Hydrate**

*Dipentine.*—see **Dipentene**

**Diphenyl Merck** (100)  
 Fr. bromobenzene, by adding sodium & distil., or by slowly passing benzene through a red-hot iron tube.— $C_{12}H_{10}$ , or,  $C_6H_5.C_6H_5$ .—Wh. scales; pleas., pecul. odor.—*Sol.*, hot A., E.—*Melt.* 70° C.—*Boil.* 254° C.

**Diphenylamine Merck.**—Pure (7)  
 (Phenylaniline).—Fr. aniline blue (triphenylrosaniline), by dry distil.— $C_{12}H_{11}N$ , or,  $(C_6H_5)_2NH$ .—Colorl. to grayish cryst.—*Sol.* A., acids; sl. in W.—*Melt.* 54° C.—*Boil.*, abt. 302° C.—*Uses*: Chem.

**do. Merck.**—Commercial (4)  
 Light yellow, cryst. mass.—*Sol.* A., acids; sl. W.—*Melt.* 54° C.

**Diphenylamine Merck.**—Reagent (8)  
 $(C_6H_5)_2NH$ .—Wh., monoclin. cryst.—*Sol.*, eas. A., E., B.; insol. W.—*Melt.* 54° C.—*Boil.* 302° C.—*Tests*: ( $HNO_3$ ) 0.2 Gm.+20 Ce. conc.  $H_2SO_4$ +2 Cc.  $H_2O$ —colorl. solut. If blue color develops, test the  $H_2SO_4$  w. brucine for possible  $HNO_3$ .—(Aniline) 1 Gm. in powd.+20 Ce. solut. chlorinated lime—no violet color.—*Uses*: Detect. nitrogen acids, especially  $HNO_3$ ; detect. wood fiber in paper.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Diphenylamine Hydrochloride Merck** (8)  
 $C_{12}H_{11}N.HCl$ , or,  $(C_6H_5)_2NH.HCl$ .—Wh. cryst.—*Sol.* A., W.—*Uses*: Reag. for nitric acid.

**Diphenylamine Orange Merck** (6)  
 (Orange GS.; Orange N.; Orange IV.; New Yellow; Fast Yellow; Acid Yellow D.; Tropæoline OO.).—Sod. salt of parasulphobenzeneazodi-

phenylamine. —Diazo-compound, fr. diphenylamine w. parasulphanilic acid.— $C_{15}H_{14}N_4O_3SNa$ , or,  $SO_3Na.C_6H_4.N \times C_6H_4.NH.C_6H_5$ .—Orange-yellow scales, or yellow powd.—*Sd.* W.—*Uses*: Techn., dyeing wool orange-yellow fr. acid bath; also as indicator in chem. analysis (acids = red, alkalies = yellow).

**Diphenylamine Sulphate** (10)  
 $C_{12}H_{11}N.SO_3$ , or,  $(C_6H_5)_2NH.H_2SO_4$ .—Wh. cryst.—*Sol.* A.—*Melt.* 125° C.—*Uses*: Reag. for  $HNO_3$ .

*Diphenylcarbamide Chloride.*—see **Diphenylurea Chloride**

*Diphenylethylene.*—see **Stilbene**

**Diphenylhydrazine Merck** (200)  
 (Monoamidodiphenylamine Hydrochloride).— $(C_6H_5)_2N.NH_2.HCl$ .—Wh. to grayish-wh., cryst. powd.—*Sol.*, eas. W., A.—*Uses*: Reagent for milk sugar (not for o. sugars & carbohydrates).

*Diphenylimide.*—see **Carbazole**

*Diphenylketone.*—see **Benzophenone**

**Diphenylmethane Merck** (70)  
 (Benzyl Benzene).—React.-prod., benzyl chloride w. benzene.— $C_{15}H_{12}$ , or,  $CH_2(C_6H_5)_2$ .—Cryst. mass consist. of long, colorl. need.—*Sol.*, eas. A., E., C.—*Melt.* 26–27° C.—*Boil.* 261–262° C.

*Diphenylmethylamine.*—see **Methyldiphenylamine**

*Diphenyloxamide.*—see **Oxanilide**

*Diphenylsulphone.*—see **Sulphobenzide**

**Diphenylurea** (40)  
 (Carbanilide).—Fr. aniline, w. phenyl cyanate.— $C_{13}H_{12}N_2O$ , or,  $(NH.C_6H_5).CO.(C_6H_5.NH)$ .—Prisms.—*Sol.*, v. eas. A., E.; v. sl. W.—*Melt.* 235° C.—*Boil.* 260° C.

**Diphenylurea Chloride Merck** (40)  
 (Carbanilide Chloride; Diphenylcarbamide Chloride).—Fr. carbonyl chloride, by diphenylamine.— $C_{13}H_{10}NClO$ , or,  $(C_6H_5)_2N.COCl$ .—Wh., cryst. scales.—*Sol.* A.; hot W.—*Melt.* 85° C.

*Diphtheria Antitoxin.*—see **Serum, Antidiphtheric**

*Diplotosamine Sulphate.*—see **Platosammonium Sulphate**

**Dipropylamine Merck** (125)  
 (Normal Dipropylamine).—Fr. normal propyl iodide by alcoh. amm. w. heat.— $C_6H_{15}N$ , or,  $(C_3H_7)_2NH$ .—Colorl. liq.; amm. odor.—Sp. Gr. 0.743 at 15° C.—*Sol.* A.; sl. in W.—*Boil.* 110° C.

*Dipropylenediamine.*—see **Lupetazin**

**Dipropylketone Merck** (190)  
 (Butyrene).—By distil. calc. butyrate at lowest possible temp.— $C_7H_{14}O$ , or,  $C_3H_7.CO.C_3H_7$ .—

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



Str. refractive, colorl. liq.; pleas. odor; burning taste.—Sp. Gr. 0.820 at 20° C.—*Boil.* 144° C.

*Dipropylmalonylurea*.—see **Proponal**

*Dipropylmethane*.—see **Heptane**

*Dipterix*.—see **Tonka**

*Diquinine Carbonic Ether*.—see **Aristochin**

*Diquinolyldimethylsulphate*.—see **Quinotoxin**

*Direct Violet*.—see **Gentian Violet B B B**

**Diresorcinol Merck** (50  
(Tetraoxydiphenyl).—By fusing resorcinol or phenol w. sodium hydroxide.— $C_{12}H_{10}O_4$ , or  $(OH)_2.C_6H_3.C_6H_3.(OH)_2$ .—Wh., cryst. powd.—*Sol.*, hot W., A.

*Diresorcinolphthalcin*.—see **Fluoresceïn**

*Disodium Methylarsenate*.—see **Sodium Methylarsenate**

*Disulphuryl Chloride*.—see **Pyrosulphuryl Chloride**

## Dita

(Dita Bark; Devil's Tree).—Bark of *Alstonia* (*Echites*) *scholaris*, R. Brown. Apocynaceae.—*Habit.*: India; also tropical Australia, Philippines, New Guinea, & Eastern Africa.—*Etymol.*: "Dita" is the Philippine & East-Indian name for the plant. Named for Chas. Alston, a Scotch botanist (1683-1760). "Echites," fr. Grk. "echis," an adder. Planks of the wood, when sanded, were used by scholars for tracing letters, hence the designation "scholaris."—Pieces of irreg. size 3-6 in. long, 1-2 in. wide, & abt.  $1\frac{1}{2}$  in. thick; extern., mottled pinkish, or brownish & white; intern., light colored w. yellowish layers; texture granular & brittle; taste slightly bitter & not astring.—*Constit.*: Ditaïne (echitamine)  $C_{22}H_{28}N_2O_4$ ; ditamine,  $C_{16}H_{19}NO_2$ ; echitin,  $C_{32}H_{52}O_{21}$ ; echiteïn,  $C_{32}H_{56}O_{21}$ ; echitenine,  $C_{20}H_{27}NO_2$ ; echiretin,  $C_{35}H_{56}O_{21}$ ; echicerin,  $C_{30}H_{41}O_{12}$ ; echicaoutchin,  $C_{25}H_{40}O_{12}$ .—*Febrif.*; *Tonic.*—*Uses*: Particularly in chronic diar. & dysent.—*Dose* 5-10 grains (0.3-0.6 Gm.) in powd., tinct., or fld. extr.

**Ditaïne Merck** (4000  
(Echitamine).—Alkaloid fr. bark *Alstonia scholaris*, R. Br. (Dita bark).— $C_{22}H_{28}N_2O_4 + 4H_2O$ .—Colorl. cryst.—*Sol.* W., A., E., C.; sl. in B.—*Melt.* 206° C. w. decomp.—*Uses*, &c.: As of curare.

**Ditaïne Sulphate Merck** (4000  
 $C_{22}H_{28}N_2O_3.H_2SO_4$ .—Colorl. need.; bitter taste.—*Sol.* W.

## Dithienyl

By oxid'g thiophene w. sulphuric acid.— $C_8H_6S_2$ , or  $C_4H_5S.C_4H_5S$ .—Large, colorl., glossy laminae.—*Sol.* A., E., & glacial acetic acid.—*Melt.* 83° C.—*Boil.* 266° C.

## Dithion

(15

• Mixture of the two sodium dithiosalicylates.—Yellowish-gray powd.—*Sol.* W.—*Uses*: *Veter.*, foot- & mouth- dis., extern. in 2.5 to 5% solut.

## Dithionaphthol

Fr.alphanaphthalene disulphochloride, by reduct.— $C_{10}H_8S_2$ , or  $C_{10}H_6(SH)_2$ .—Wh., cryst. powd.—*Sol.*, hot A.; sl. in A., E., & toluene.—*Melt.* 180° C.—*Boil.* 210° C.

*Dithymol Diiodide*.—see **Thymol Iodide**

*Dittany*.—see **Dictamnus**

## Diuretin Knoll

(35

(Salicylate of Sodium-Theobromine).— $C_7H_7N_7O_2Na + C_6H_4(OH)COONa$ .—White, amorph., hygrosc. powd.; cont. abt. 50% theobromine.—Decomp. on expos.—*Sol.*, eas. W., hot dilute A., & soda solut.—*Diuret.*—*Uses*: Heart dis., nephr., espec. of scar. fever, dropsy, in dyspnea & coughs.—*Dose* 8-15 grains (0.5-1 Gm.) sev. t. p. d. in g'lat. caps., or diss. in peppermint W.—*Max. D.*, 15 grains (1 Gm.) single; 120 grains (8 Gm.) daily.—*Caut.* Keep fr. air!

*Divanadyl Tetrachloride*.—see **Vanadium Chloride**

*Djambož*.—see **Guava**

**Dobbin's Reagent**.—For caustic alkalies in carbonates

Solut. potassium-mercury iodide w. addition of ammonium chloride.—Presence of NaOH in  $Na_2CO_3$  is indicated by development of a yellow color on adding reagent.

*Dock, Yellow*.—see **Rumex**

*Dogbane*.—see **Apocynum**; & **A. Androsæmifolium**

*Dog Grass*.—see **Triticum**

*Dog Rose*.—see **Rosa Canina**

*Dogwood*.—see **Cornus Florida**

*Dogwood, Jamaica*.—see **Piscidia**

*Dogwood, Round-leaved*.—see **Cornus Circinata**

*Donovan's Solution*.—see **Solution Arsenous & Mercuric Iodides**

**Dormiol**.—50% (5

(Amylenechloral kalle; Dimethylethylecarbinolchloral).— $CCl_3.CHOH.O(CH_3)_2C_2H_5$ .—Colorl. liq.—*Sol.* A., E., C., fixed oils; insol. cold W.—*Sp. Gr.* 1.24 at 15° C.—*Hypn.*—*Doses*: In insomnia, 8-15  $\text{m}$  (0.5-1 Cc.); in mania, 25-45  $\text{m}$  (1.5-3 Cc.).

*Dorstenia*.—see **Contrayerva**

*Double Green*.—see **Methyl Green**

*Doundaké*.—see **Njimo**

**Dover's Powder Merck**.—U. S. P. (2

(Powd. Ipecac & Opium).—Powd. ipecac & powd. opium each 1, & powd. milk sugar 8.—Anod.; Diaph.—*Dose* 3-20 grains (0.2-1.3 Gm.).  
*Note*.—As this powder is prepared in strict

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaïacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



accordance with the U. S. P., it always affords the results desired & expected, & it should hence always be dispensed when prescribed.

### Dragendorff's Reagent. — For alkaloids

(Solution Bismuth & Potassium Iodides).—Aq. solut.  $\text{BiI}_3$ ,  $\text{KI}$ .—Bismuth iodide in twice the amount warm conc. solut. of potass. iodide necessary for solut.—*Uses*: Alkaloid determination.—*Caut.* Keep in the dark in well-corked bottle. Do not dilute till needed.

### Dragon's Blood

(Sanguis Draconis).—Resin fr. fruit of *Damonorops Draco*, Blume, Palmæ.—*Habit.*: South Asiatic Islands (Sumatra & Java).—*Etymol.*: Fr. Grk. "drakon," or "drakainos," dragon, or dragon-like, i. e., the juice of the plant has a blood-red color.—*Constit.*: Dracocalban; dracoresen; benzoic acid-dracoresinotannolester; benzoylacetienic acid-dracoresinotannolester; dracoinin.—*Uses*: Techn., in plasters, lacquers, tooth-powders; dentifrices, &c.

*Drimys Winteri*.—see *Wintera*

*Drop Chalk*.—see **Calcium Carbonate, Prepared**

### Drosera

(Round-leaved Sundew; Common Sundew; Yarrowwort).—Whole plant, *Drosera rotundifolia*, L. Droseraceæ.—*Habit.*: Europe; Asia; N. America, south to Florida & California.—*Etymol.*: Grk. "droseros," bedweld, fr. "drosos," dew, referring to the appearance presented by the long, shining hairs in the sunlight.—*Constit.*: Peptonizing ferment; coloring matter; tannin.—*Diuret.*; *Antispasmod.*—*Uses*: Particularly in epilepsy & asthma; also in whoop-cough, chron. bronchitis, catarrh, dyspepsia, & in incipient phth. & chronic cough.—*Extern.*, as epispastic in warts.—*Doses*: 5–20 grains (0.3–1.3 Gm.).—*Extr.*, 1–3 grains (0.06–0.2 Gm.).—*Fld. extr.*, 5–20  $\text{m}$  (0.3–1.5 Cc.).—*Tinct.*, 10–30  $\text{m}$  (0.6–2 Cc.).

*Dryopteris*.—see **Aspidium**

### Duboisia

(Corkwood Elm; Orungurabie; Ngmoo).—Bark & lvs. of *Duboisia myoporoides*, R. Brown, Solanaceæ.—*Habit.*: Australia & New Guinea.—*Etymol.*: Named for François Noël Dubois, a French botanist, born at Orleans (1752–1824). *Myoporoides*, fr. Grk. "mus," mouse, "poros," cavity or hole, & "oidos," like, i. e., like a mouse hole, because the lvs. are dotted w. transparent spots resembling mouse-holes.—*Constit.*: Duboisine,  $\text{C}_{17}\text{H}_{23}\text{NO}_3$  (identical w. hyoscyamine, Ladenburg); hyoscyne; & other alkaloids.—*Mydriatic*; *Antispasmod.*; *Hypnotic*.—*Uses*: Instead of belladonna & hyoscyamus.—*Techn.*, source of duboisine.—*Doses*: Lvs., 5–10 grains (0.3–0.6 Gm.).—*Extr.*,  $\frac{1}{4}$ –1 grain (0.015–0.06 Gm.).—*Fld. extr.*, 5–10  $\text{m}$  (0.3–0.6 Cc.).—*Antid.*, emetics, stomach siphon, tannin, animal charcoal followed by an emetic, brandy, ammonia, artif. respiration.

### Duboisine Merck. — Pure, cryst.

(3000

(Identical with Hyoscyamine, Ladenburg).—Fr. lvs. of *Duboisia myoporoides*, R. Br.— $\text{C}_{17}\text{H}_{23}\text{NO}_3$ .—Microsc., wh. need.—*Sol.* A., E., C.; sl. in W.—*Melt.* 106–108° C.—*Sed.*; *Hypn.*; *Mydr.*—*Uses*: Mental dis.; not used topically because insol.—*Dose*  $\frac{1}{300}$ – $\frac{1}{60}$  grain (0.0002–0.001 Gm.).—*Max. D.*  $\frac{1}{60}$  grain (0.001 Gm.) single;  $\frac{1}{20}$  grain (0.003 Gm.) daily.—*Antid.*, emetics, stomach-siphon, pilocarpine, muscarine.

### do. Merck. — Pure, amorph.

(2000

Yellow, thick, syrup-like, liq. alkaloid fr. lvs. *Duboisia myoporoides*.—*Sol.* A., E., C.—*Dose*  $\frac{1}{300}$ – $\frac{1}{60}$  grain (0.0002–0.001 Gm.).

### Duboisine Hydrobromide Merck

(1500

$\text{C}_{17}\text{H}_{23}\text{NO}_3 \cdot \text{HBr}$ .—Yellowish, coarse, v. hygrosc. powd.; fr. amorph. duboisine.—*Sol.* W., A.—*Uses* & *Dose*: As of duboisine.

### Duboisine Hydrochloride Merck

(1500

$\text{C}_{17}\text{H}_{23}\text{NO}_3 \cdot \text{HCl}$ .—Yellowish, coarse, v. hygrosc. powd.; fr. amorph. duboisine.—*Sol.* W., A.—*Uses* & *Dose*: As of duboisine.

### Duboisine Sulphate Merck. — Amorph.

(875

( $\text{C}_{17}\text{H}_{23}\text{NO}_3$ ) $_2 \cdot \text{H}_2\text{SO}_4$ .—Yellowish, v. deliq. powd., fr. amorph. duboisine.—*Sol.* W., A.—*Uses*: Chiefly as mydr.; much stronger than atropine.—*Appl.*, in 0.2 to 0.8% solutions. *Dose*: As of duboisine.—*Hypn.* & *sed.*, in psychic dis., us'y hypoderm.  $\frac{1}{300}$ – $\frac{1}{60}$  grain (0.0002–0.001 Gm.).

### Dudley's Reagent. — For glucose

Bismuth subnitrate dissolved in nitric acid, diluted w. W., & then mixed w. acetic acid.—Reduced by glucose in alk. solut. on boil., with formation of gray to black ppt.

### Dulcamara

(Bitter-sweet; Woody Nightshade; Scarlet Berry).—Young branches of *Solanum Dulcamara*, L. Solanaceæ.—*Habit.*: Europe; western Asia; northern Africa; naturalized in U. S.—*Etymol.*: "Solanum," fr. Lat. "sol," sun, i. e., the plants dislike sunlight, & grow best in the shade. "Dulcamara," fr. Lat. "dulcis," sweet, & "amarus," bitter, referring to the taste of the twigs, which is at first bitter, & then somewhat sweet.—*Constit.*: Solanine,  $\text{C}_{52}\text{H}_{93}\text{NO}_{18} + 4\frac{1}{2}\text{H}_2\text{O}$ ; dulcamarin,  $\text{C}_{22}\text{H}_{34}\text{O}_{10}$ .—*Alter.*; *Diaphor.*; *Diuret.*—*Uses*: Dropsy, diseases of respir. organs, lepra, psoriasis, pityriasis & other cutan. diseases; chron. catarrh, & rheum.—*Doses*: Extr., 5–20 grains (0.3–1.3 Gm.).—*Fld. extr.*, 30–120  $\text{m}$  (2–8 Cc.).

*Dulcin*.—see **Dulcit**; **Sucrol**

### Dulcit Merck

(250

(Dulcitol; Melampyrit; Dulcin; Dulcose; Euonymit).—Sugar fr. *Melampyrum nemorosum*, L., & o. species of *Melampyrum*, & of *Euonymus*.— $\text{C}_6\text{H}_{14}\text{O}_6$  or  $\text{C}_6\text{H}_8(\text{OH})_6$ .—Crusts of wh. glitt. cryst.; sl'y sweet taste.—*Sol.* W.; sl. A.—*Melt.* 188–189° C.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Dulcitol.* { —see **Dulcitol**  
*Dulcose.* }

*Duolal.* —see **Guaiacol Carbonate**

**Dupasquier's Reagent.**—For organic matter in water

Aqu. solut. gold chloride.—On boil., the reagent ppt's organic matter with bluish-violet color.

**Durene Merck** (550)  
 (Durol; Symmetrical Tetramethylbenzene [-zol]).  
 —Fr. bromopseudocumol & methyl iodide w. metallic sodium; or fr. orthoxylene & methyl chloride w. aluminum chloride.— $C_6H_2(CH_3)_4$ .—[1:2:4:5].—Colorl. cryst.; camphor. odor.—*Sol.* A., E., B.—*Melt.* 79–81° C.—*Boil.* 189–191° C.

*Durol.* —see **Durene**

*Dutch Drops.* —see **Oil Linseed Sulphurated, Terebinthinated**

*Dutch Liquid.* —see **Ethylene Chloride**

*Dutch Oil.* —see **Oil Linseed Sulphurated, Terebinthinated**

*Dwarf Elder.* —see **Aralia Hispidia; Ebulus**

*Dyes, Aniline.* —see **Aniline Dyes, or under the specific name of each dye**

**Dymal** (7)  
 A substance, consisting chiefly of didymium salicylate, obtained as a by-product in the manuf. of incandescence mantles.—Gran. powd.—Antisept.; Siccative.—*Uses:* Wounds, burns, var. skin diseases, erysipelas, hyperidrosis, bed sores, ulcers, gangrene, &c.—*Appl.*, as dusting powd., or in 10% oint. w. lanum.

**Dysalbumose Merck** (110)  
 Albumose obt. according to Kühne by action of pepsin on fibrin.—Brown powd.—Insol. W. & dil. solut. NaCl; pptd. fr. its neutral solut. by NaCl.

**Dyslysine Merck** (400)  
 (Cholalic Acid Anhydride).—Decomp.-prod. of cholalic acid.— $C_{24}H_{36}O_8$ .—Yellowish powd.—*Sol.* E.; sl. in boiling A.—*Melt.*, above 140° C.

## E

*Earth; Diatomaceous, Infusorial, or Siliceous.* —see **Kieselguhr**

*Earth Wax.* —see **Ceresin, White & Yellow**

**Eber's Reagent.**—For testing sausage

Mixture of 10 Gm. hydrochloric acid, 30 Gm. alcohol, & 10 Gm. ether.—A small piece of sausage held over a few drops of the reagent in a wide test-tube gives rise to a cloud (due to ammonia) if sausage is decomposed.

**Ebulus**

(Blood Elder; Bloodwort; Dwarf Elder).—Fruit, herb, & root of *Sambucus Ebulus*, L. Caprifoliaceæ.—*Habit.*: Europe.—*Etymol.*:

"*Sambucus*," fr. Grk. "sambyx," a red dye, & referring to the color of the juice of the berries; or, fr. Lat. "sambuca," a term applied to various wind & string instruments, i.e., the elder, freed fr. its soft pith, leaves a tube which was used to make musical instruments. "Ebulus," perhaps fr. Grk. "eu," good, & "bule," advice, because used for many ills.—*Constit.*: *Fruit*: Volat. oil; valeric acid; tannic acid.—*Root*: Bitter substance.—*Uses*: *Fruit*: Laxative.—*Herb & Root*: Purgat. & diuret.—*Techn.*, for ink.

*Ecboline.* —see **Cornutine**

**Ecgonine Merck** (500)  
 (Betaoxymethylbetapyridylpropionic Acid).—Basic decomposition product of cocaine, by hydrochl. acid at 100° C.— $C_8H_{15}NO_3 + H_2O$ , or,  $CH(OH).CH(CO_2H).CH(N.CH_3).(CH_2)_2.CH.CH_2 + H_2O$ .—Wh., monocl. prisms; sl. bitter taste.—*Sol.* A.; 5 W.; insol. E.—*Melt.* 198° C.

**Ecgonine Hydrochloride Merck** (450)  
 $C_8H_{15}NO_3.HCl$ .—Tricl., wh. tablets.—*Sol.* W.; sl. in A.—*Melt.* 246° C.

**Echinacea**

(Cone Flower; Black Sampson; Purple Cone Flower).—Root of *Echinacea angustifolia*, D. C. Compositæ.—*Habit.*: North America.—*Etymol.*: Grk. "echinos," hedge-hog, meaning spiny, & refer. to the spiny fruiting head. Lat. "angustus," narrow, & "folium," leaf, i.e., narrow-leaved.—*Constit.*: Acid resinous substance.—Antisept.; Aphrodis.; Febrif.; Analges.; Alterative.—*Uses*: Scrofula, rheum., & syphilis.—*Extern.*, as dressing in malignant carbuncle, & mammitis; also in cutaneous diseases.—*Doses*: 30–60 grains (2–4 Gm.).—*Fld. extr.*, 30–60 ml (2–4 Ce.). 20–60 drops of a 1:3 aqu. solut. taken internally, & the solut. also applied to the glans penis, is said to relieve the erections of pseudo-impotence.

*Echitamine.* —see **Ditaine**

*Eclipse.* —see **Benzopurpurine**

**Ehrlich-Biondi's Triacid Mixture**

Satur. aqu. solut. of mixt. 10 Orange G., 3 Ruby S., & 5 Methyl Green OO.—*Uses*: Double- & poly-staining microscopic sections, particularly in pathologic-anat. exam. of intestines.

**Ehrlich's Hematoxylin-Glycerin**

Solut. 3 Gm. hematoxylin in 90 Gm. A., mixed w. solut. 6 Gm. glacial acetic acid, 120 Gm. G., & 120 Ce. W. saturated w. alum.—*Uses*: Staining nuclei & schizomycetes.

**Ehrlich's Neutral-Red Stain.**—For bacteria

1% solut. Neutral Red in v. dil. solut. sod. chloride.—*Uses*: Staining bacteria. Color changes to yellowish-orange in sl. alka. media.

**Ehrlich's Reagent.**—For bilirubin

(a), 2.5 sulphanilic acid, 25 hydrochloric acid, & 100 W.; (b), 0.5 sodium nitrate & 100 W.—

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



For use, 49 parts (a) & 1 part (b) are mixed.—On adding the reagent to a solut. containing bilirubin & acidulated w. acetic acid, an intense blue or violet color develops.

**Ehrlich's Stain.**—For tubercles

3 soluts. are used: (a) filtered 1.20 aq. solut. aniline; (b) conc. alcoh. solut. fuchsin; (c) conc. alcoh. solut. gentian violet.—100 parts solut. (a) are mixed w. either 11 parts solut. (b) or (c).—*Uses*: When freshly prepared, mixture can be used for staining cover-glass preparations. For staining sections, only perfectly clear mixtures must be used, which can be obtained by allowing to stand for 24 hrs.

**Ehrlich's Triacid Solution**

Satur. aq. solut. Orange G 100, Ruby S 80, & Methyl Green 100, in 300 W., 50 glycerin, & 180 absolute A.

**Eikonogen** (5)

Sodium salt of amidobetanaphtholbetamonosulphonic acid.— $\text{NH}_2\text{C}_{10}\text{H}_5(\text{OH})\text{SO}_3\text{Na} + 2\frac{1}{2}\text{H}_2\text{O}$ .—Wh. powd.; str. reduc. power on silver salts.—*Sol.* W.—*Uses*: Photo. developer.—*Incomp.*, ammonia fumes.

**Eimbrodt's Reagent.**—For ammonium salts

Aq. solut. mercuric chloride rendered alkaline w. alkali carbonate.—Gives a wh. ppt. or turbidity w. ammonium salts.

**Elaidin Merck** (225)

(Trielaidin).—Solid polymeride of olein.—Fr. olein, by nitrous acid.— $\text{C}_{31}\text{H}_{52}(\text{C}_{18}\text{H}_{32}\text{O}_2)_3$ .—Wh. cryst.—*Sol.* E.—*Melt.* 38° C.

**Elaphomyces**

(Hart's Truffle; Hart's Balls; Deer Balls; Lycoperdon Nuts; Fungus Cervinus; Boletus Cervinus).—The fungus, *Elaphomyces granulatus*, Fries. Tuberales.—*Habit.*: Europe.—*Etymol.*: Fr. Grk. "elaphos," deer, & "mykes," fungus.—*Constit.*: Bitter principle.—*Uses*: Popular remedy, chiefly in veter. practice as aphrod.

**Elastica.**—see **Rubber**

**Elastin Merck.**—Dried (100)

Fr. ligament. tissue, princ. ligamentum nuchae of ox, horse, &c.—Yellow albuminoid like gelatin.—*Sol.*, hot conc. solut. potassa; cold conc.  $\text{H}_2\text{SO}_4$ ,  $\text{HNO}_3$ ; partially in pepsin solut.

**Elaterin Merck** (400)

Active neutral prin. fr. *Elaterium*, a subst<sup>ee</sup> deposited by juice of *Ecballium Elaterium* (L.) A. Richard, Cucurbitaceae (Squirting Cucumber).— $\text{C}_{20}\text{H}_{28}\text{O}_5$ .—Wh., cryst. powd.; v. bitter taste.—*Sol.* 262 A., 318 E., 22 C., 272 B., 200 amyl alcohol, at 25° C. (U. S. P.); insol. W.—*Melt.* 216° C. (U. S. P.).—Drastic Purg.—*Uses*: Ascites, uremia, pulmon. edema, poison, by narcotics, &c.—*Dose*  $\frac{1}{20}$ – $\frac{1}{10}$  grain (0.003–0.006 Gm.), in granules.—*Max. D.*  $\frac{1}{6}$  grain (0.01 Gm.) p. d.—*Caut.* Poison!

**Elaterium Merck** (55)

(White, English, or Clutterbuck's, *Elaterium*; Extract *Elaterium*).—Sediment fr. juice *Ecballium Elaterium* (L.) A. Rich. (Squirting Cucumber).—Grayish-green, flat or sl'y curled, sm. pieces, or powd.; fbl. odor; bitter, sl'y acid taste.—*Sol.*, partly hot A.—*Uses*: Drastic purg. Variable act.; percentage elaterin fluctuates.—*Dose*  $\frac{1}{8}$ – $\frac{1}{2}$  grain (0.008–0.03 Gm.).

**Elayl Chloride.**—see **Ethylene Chloride**

**Elder; Blood or Dwarf.**—see **Ebulus**

**Elder, European.**—see **Sambucus**

**Elder Fungus**

(Jews'-Ear Fungus).—*Auricularia sambucina* Mart. Tremellinales.—*Habit.*: Europe.—*Constit.*: Mycose, & mucilage.—*Uses*: In eye-lotions.

**Elecampane.**—see **Inula**

**Elecampane Camphor.**—see **Helenin**

**Elemi**

(Resin Elemi; Gum Elemi; Manila Elemi).—Concrete oleoresin fr. *Canarium commune*, L. Burseraceae.—*Habit.*: Luzon.—*Etymol.*: "Elemi" is the East-Indian name of the plant; "Canarium," fr. "canari," the Malay name of the plant; "commune," fr. Lat. "commune," common.—Transp., soft, yellowish, granular masses; friable when cold; bitter, acid, pungent taste; fragrant terebinthinate odor.—*Sol.*, partly in cold, but entirely in hot, A.; eas. in E. & oil turpentine; insol. W.—*Constit.*: Volat. oil;  $\alpha$ -mandelic acid,  $\text{C}_{37}\text{H}_{56}\text{O}_4$ ;  $\beta$ -mandelic acid,  $\text{C}_{34}\text{H}_{48}\text{O}_4$ ; resins ( $\alpha$ - &  $\beta$ -amyrin & mandersen); bitter principle; bryoidin.—*Uses*: Ingrid. in resolvent plasters & oints. for atonic ulcers.—*Techn.*, in varnishes & lacquers.

**Eleuthera Bark.**—see **Cascarilla**

**Elm, European.**—see **Ulmus Campestris**

**Eluteria Bark.**—see **Cascarilla**

**Embelia**

(Barabang; Babirung).—Fruit of *Embelia Ribes*, Burm. Myrsinaceae.—*Habit.*: East India.—*Etymol.*: "Embelia" is the Ceylonese name of the plant. "Ribes," fr. Arabic "ribus," which, however, designates Rheum Ribes.—*Constit.*: Embelic acid,  $\text{C}_{30}\text{H}_{48}\text{O}_2$ .—Toniafuge; Carminative Stomachic; Alterat.; Antirheum.; Tonic.—*Uses*: Tapeworm, rheumat., chronic skin diseases, dyspep.; also locally in ringworm.—*Doses*: 60–180 grains (4–12 Gm.).—Fld. extr., 1–3 fl. dr. (4–12 Ce.).

**Emerald Green.**—see **Brilliant Green**

**Emery**

(Lapis Smiridis).—A very hard variety of massive corundum (aluminum silicate).—*Habit.*: Europe, Asia Minor, & U. S.—*Uses*: In form of fine powd. as abradant & polish for wood, stone, metal, microscopical stone sections, &c.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Emetic Root.**—see **Euphorbia Corollata**

**Emetin Merck.**—Resinoid (150)

Purified extr. fr. root *Cephaelis Ipecacuanha*, A. Richard.—Yellowish-brown, light lumps.—*Sol.* W.—*Emetic*; *Diaph.*; *Expector.*—*Doses*: Emetic 3 grains (0.2 Gm.) given in 2 portions; expector.  $\frac{1}{60}$ – $\frac{1}{30}$  grain (0.001–0.002 Gm.).—*Caut.* Keep well stoppered.

**Emetine Merck.**—Alkaloid (712)

Total alkaloids fr. root *Cephaelis Ipecacuanha*, A. Richard; contains both emetine & cephaeline.—Whitish powd.; bitter taste; darkens on expos.—*Sol.* A., C.; sl. in E.; v. sl. in W.—*Emetic*, in large doses; *Expector.*, & *Antipyr.*, small doses.—*Doses*: Emetic,  $\frac{1}{12}$ – $\frac{1}{6}$  grain (0.005–0.01 Gm.); expector.,  $\frac{1}{60}$ – $\frac{1}{30}$  grain (0.001–0.002 Gm.).

**Emetine Hydrochloride Paul-Merck** (2000)

Hydrochloride of a very stable base, found together w. cephaelin, in *Cephaelis Ipecacuanha*.— $C_{15}H_{22}NO_2 \cdot HCl$ .—Wh., cryst. powd.—*Sol.* W., A.—*Uses*: As of emetine.—*Dose*: *Expector.*,  $\frac{1}{12}$ – $\frac{1}{6}$  grain (0.005–0.01 Gm.).

**Emodin Merck** (3250)

(Trioxymethylanthraquinone; Methyltrihydroxyanthraquinone).—Identical with frangulinic acid fr. *Rhamnus Frangula*, L.— $C_{15}H_{10}O_5$ , or  $CH_3 \cdot C_6H_3(OH)_3$ .—Reddish-yellow cryst.—*Sol.* A.; glac. acetic acid; anyl. A.; alk. solut. (w. cherry-red color).—Sublimable.—*Aper.*—*Dose*  $1\frac{1}{2}$  grains (0.1 Gm.).

**Emulsin Merck** (125)

Ferment, fr. seed *Prunus Amygdalus*, var. amara, De C. (Bitter almonds).—48.7% C., 7.1% H.; 14.1% N, 1.25% S, & 28.7% O.—Wh. powd.—*Sol.* W.—*Uses*: Conv. amygdalin into benzoic aldehyde, HCN, & glucose.

**Enallachrom.**—see **Esculin**

**Enesol**

(Mercury Salicylarsenate).—Amorph., wh. salt.—38.46% Hg, & 14.4% As.—*Sol.* 25 W.—*Uses*: Syphilis, &c.—*Dose*: As of mercury biniodide (1 part enesol=abt. 1 of HgI<sub>2</sub>).—*Inj.* 15–30 m (1–2 Cc.) of 3% solut. hypoderm.

**English Brown.**—see **Bismarek Brown**

**English Yellow.**—see **Victoria Orange**

**Enterolobium Timboivum.**—see **Pacara**

**Eosine Bluish Merck** (8)

Commercial erythrosine (sodium iodeosine).—Brown powd.—*Sol.* W.—*Uses*: Dyeing wool, cotton, & paper. In histology as stain for epithelia, muscular fibers, nuclei, hemoglobin preparations, &c.

**Eosine Yellowish Merck** (8)

(Bromeosine).—Alkali salt of tetrabromofluorescein.—By brominating fluorescein in solut.— $C_{20}H_6O_6 \cdot Br_4K_2$ , or  $C_6H_4(CO \cdot C_6H_4Br_2OK)_2O$ .—Red, glisten. cryst.—*Sol.* W., A.—*Uses*:

Adapted for coloring; also dyeing wool & silk yellowish-red, & in painting; 5 or 10% aqu. solut. in bacterial work.

**Eosote.**—see **Creosote Valerate**

**Ephedra**

(Cay Note; Canutillo; Whore-house Tea; Tapopote; Teaster's Tea).—Lvs. & branches of *Ephedra nevadensis* S. Wats. (E. antisiphilitica, C. A. Meyer) Gnetaceae.—*Habit.*: U. S. (Calif.; Nevada).—*Etymol.*: Fr. Grk. "epi," upon, & "edra," seat, i.e., the plant climbs & grows upon rocks.—*Constit.*: Ephedr in (a glucosidal tannin).—*Antisyph.*; *Astring.*—*Uses*: Gonorrh.—*Dose* 30–120 grains (2–8 Gm.) in powd., fld. extr., or infus.

**Ephedrine**

Alkaloid fr. lvs. of *Ephedra helvetica*, C. A. Meyer, Gnetaceae.— $C_{10}H_{15}NO$ .—Colorless cryst.—*Sol.* A., E., C., W.—*Mydriatic*.

**Ephedrine Hydrochloride Merck** (750)

$C_{10}H_{15}NO \cdot HCl$ .—Wh. need.—*Sol.* W., A.—*Melt.* 214–215° C.—*Mydr.*—*Uses*: One to two drops of 10% aqu. solut. in eye, inst. of atropine or homatropine. No irritation or disturb. of accommodation.

**Ephedrine (Pseudo-) Merck** (2250)

Alkaloid fr. *Ephedra vulgaris*.— $C_{10}H_{15}NO$ .—Colorl. cryst.—*Sol.* A., E., C.—*Melt.*, abt. 115° C.—*Mydriatic*.

**Ephedrine (Pseudo-) Hydrochloride Merck** (1750)

$C_{10}H_{15}NO \cdot HCl$ .—Yellowish cryst.—*Sol.* W., A.—*Melt.* 175–176° C.—*Mydr.*—*Appl.*, one or two drops of 10–12% solut. No inflammation, or disturb. of refract. or accommodation.

**Epicarín** (14)

(Oxynaphtylortho-oxytoluyllic Acid).— $COOH \cdot C_6H_4(OH) \cdot (CH_2 \cdot C_6H_4)_2 \cdot OH$ .—Colorl. to yellowish need.—*Sol.* A., E., acetone, & in oils w. addition of a little E.; diffie. in warm W., glac. acetic acid, B., & C.—*Misc.*, w. petrolatum & lanum.—*Melt.* 195–199° C.—*Antiparasitic*.—*Uses*: Various skin diseases.—*Appl.* 5–20% oints. or alcoholic soluts.

**Epichlorhydrin Merck** (12)

(Chloropropylene Oxide).—Fr. dichloropropyl alc. by HCl gas.— $C_3H_5ClO$ , or  $CH_2Cl \cdot CHO \cdot CH_2$ .—Colorl. liq.—*Sp. Gr.* 1.203 at 0° C.—*Misc.* A., E.—*Boil.* 118–119° C.—*Uses*: Techn., as solvent for resins, specially copal, for manuf. laequer for negatives, solvent for nitrocellulose, manuf. zapon & o. laequeurs, cement for celluloid, &c.

**Epigæa**

(Trailing Arbutus; Gravel Plant; Ground Laurel).—Lvs. of *Epigæa repens*, L. Ericaceae.—*Habit.*: U. S. (Florida to Michigan & northwards).—*Etymol.*: Grk. "epi," upon, & "gaia," earth, referring to its habit of creeping on the

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



ground. Lat. "repens," also means creeping.—*Constit.*: Arbutin,  $C_{12}H_{16}O_7 + 1/2 H_2O$ ; urson,  $C_{26}H_{44}O_9$ ; ericolin (glucoside),  $C_{31}H_{54}O_{12}$  or,  $C_{26}H_{40}O_9 + 4H_2O$  (?); formic acid.—*Anticatarrh.*: Diuret.; Astring.—*Uses*: Pyelitis, cystitis, lithiasis, incontin. of urine, leucorrh., &c.—*Dose*: Fld. extr., 30–60  $\text{m}$  (2–4 G.).

*Epinephrin Hydrate*.—see **Adrin**

## Epiosin

$C_{12}H_{12}N_2$ .—Deriv. of oxamidophenanthrene.—Color: cryst.—*Sol.* A, C; insol. W., E.—*Melt.* 195° C.—*Solat.*: Hypnot.—*Dose*  $1\frac{1}{2}$  grains (0.1 Gm.).

*Epsom Salt*.—see **Magnesium Sulphate**

## Equisetum

(Horsetail; Field Horsetail; Bottle-brush).—E. hyemale is also known as Scouring Rush.—Whole plant Equisetum arvense, L. Equisetaceae, & of E. hyemale, L.—*Habit.*: Northern Europe; Asia; North America (south to Virginia & Calif.).—*Etymol.*: Lat. "equus," horse, & "seta," tail, referring to the copious branching of several species.—*Constit.*: Silica; resin; tannin.—Both plants are Diuret.; Astring., & Anticatarrh.—*Uses*: Medic., gout, gravel, dropsy, hematuria, gonorr., & gleet.—*Techn.* E. hyemale is used also as a polishing agent, & for scouring tin vessels, &c.—*Dose*: Decoct. (1:20) freely taken.—Fld. extr., 30–60  $\text{m}$  (2–4 C.).

## Erbium Merck

(7000

Fr. the gadolinite earths of medium basicity, freed so far as possible from the weaker base ytterbium & the stronger basic earths of the ytterbium group. Free fr. earths of the cerium group.—*Etymol.*: Fr. "Ytterby," the place where gadolinite was found; the name erbium was given the element in 1843 by Mosander, who separated the erbia fr. the ytterbium earths.—*Absorption Spectrum*, lines of erbium, thulium, & holmium.—*Er.*: Dark gray powd.

## Erbium Nitrate Merck

(250

$Er_2(NO_3)_6 + 12H_2O$ .—Reddish cryst.—*Sol.*, eas. W., A.

## Erbium Oxide Merck.—Anhydrous

(350

$Er_2O_3$ .—Reddish-yellow powd.; glows intens. green at h. temp., & gives a non-continuous emission-spectrum.—*Sol.*, min. acids; insol. W.

## Erbium Sulphate Merck

(250

$Er_2(SO_4)_3 + 8H_2O$ .—Rose-red cryst.—*Sol.* W.

## Erdmann's Reagent.—For alkaloids

Mixt. 1 vol. dil.  $HNO_3$  w. 30 vol. conc.  $H_2SO_4$ .—Gives color reactions w. various alkaloids.

## Ergot.—U. S. P.

(Secale Cornutum; Spurred Rye).—Sclerotium of Claviceps purpurea (Fries) Tulasne, Hypocreaceae, replacing the grain of rye, Secale cereale, L. Gramineae.—*Habit.*: Europe; cultiv. in Spain, Germany, & France.—*Etymol.*: "Ergot,"

fr. Lat., derived fr. French "ergot," or "argot," a spur, referring to its shape. "Secale," fr. Lat. "secare," to cut, Celtic "segal," fr. "sega," a sickle. "Cornutum," Lat. horny, referring to the character of the ergot. "Claviceps," fr. Lat. "clava," a club, referring to shape of the sclerotium.—*Constit.*: Ergotic (sclerotinic or ergotinic) acid; sphacelinic acid; ergotine; cornutine (eeboline); chrysotoxin; secalintoxin; sphacelotoxin; ergochrysin (coloring matter); cholesterol; leucin; mannit.—*Parturient*; Hemostat.; Emmenag.; Ecbolic; Excitomotor.—*Uses*: Labor, menorrhag., metrorrhag., & other internal hemorrhages, night-sweats, whoop-cough, migraine, diabetes insipidus, paraplegia, epilepsy, chronic cerebral congest., vesical paralysis, &c.—*Doses*: 8–15 grains (0.5–1 Gm.) every 10–15 minutes as parturient; 3–5 grains (0.2–0.3 Gm.) 3–4 times daily as hemostat.—Aceto-alcoh. extr., 5–15 grains (0.3–1 Gm.); subcut. 1–8 grains (0.06–0.5 Gm.) dissolved in water.—Aqu. extr., see Ergotin, Bonjean.—Fld. extr., 30–120  $\text{m}$  (2–8 C.).—*Antid.*, ether; camphor; coffee; emetics; purgatives; tannin (5 grains [0.3 Gm.]) every 15 minutes.

## Ergotin Bombelon-Merck.—Fluid

(60

(Bombelon's Liquid Ergotin).—Dark-brown liq.—*Uses*: As of ergot.—*Dose* 30  $\text{m}$  (2 C.), repeated in 10 minutes.—*Inj.*, 3–8  $\text{m}$  (0.2–0.5 C.), w. enough sterilized W. to make 15  $\text{m}$  (1 C.).

## Ergotin Bonjean-Merck

(7

Fr. ergot by water, & purified by alcohol.—Reddish-brown, soft extr.; 1 part = 5–6 parts ergot.—*Sol.* W.—*Uses*: As of ergot.—*Dose* 2–5 grains (0.12–0.3 Gm.) in pill or subcut. several t. p. d.—*Incomp.*, astringents & metallic salts in solut.—*Antid.*, tannin, opium, nitroglycerin.—*Caut.* Decomp. in solut.; should be sterilized & kept with great care.

*Note.*—This Ergotin should be used when the best results are desired, because it is most carefully made from prime materials.

## do. Bonjean-Merck.—Liquid, purified

(12

(Bonjean's Hemostatic Extract).—The preceding still further purified; 1.5 parts = 1 part Ergotin-Bonjean.—Clear, reddish-brown liq.—*Uses*: Hypoderm. in uterine hemor. & o. intern. hemor.—*Dose* 8–10  $\text{m}$  (0.5–0.6 C.).

## do. Bonjean-Merck.—Dried, with Dextrin

(10

Bonjean's ergotin w. equal wt. dextrin.—Dry, brown, hygrosc. powd.—*Uses*: As of ergotin.—*Dose*: Double that of Ergotin Bonjean.—*Caut.* Keep well stoppered.

## do. Bonjean-Merck.—Dried, with Milk Sugar

(10

Bonjean's ergotin w. equal wt. milk sugar.—Dry, brown, hygrosc. powd.—*Sol.* W.—*Uses*: As of ergotin.—*Dose*: Double that of Ergotin Bonjean.—*Caut.* Keep well stoppered.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Ergotin Denzel-Merck** (80)

Purif. extr. fr. ergot.—*Dose*: 1 fl. oz. (30 Ce.) of a solut. 2 parts ergotin Denzel in 180 parts cinnamon water.—*Hypoderm.*, 8–15 m (0.5–1 Ce.) of a solut. 38 grains (2.5 Gm.) ergotin in 110 m (7.25 Ce.) W., w. 4 grains (0.25 Gm.) borax added.

*Ergotin Keller.*—see **Secornin**

**Ergotin Kohlmann-Merck.**—Fluid (10)

Dark-brown liquid.—*Sol.* W.—15 m (1 Ce.)=1 Gm. powd. ergot not deprived of its oil.—The action is equal to that of fresh ergot.—*Doses*: In uterine at my following delivery, 60–75 m (4–5 Ce.) in a single dose; in hemorrhage, the like dose is given in divided portions per day; as a parturient, 8–12 m (0.5–0.8 Ce.) ev. hr., incr. as neccs. to 20–30 m (1.3–2 Ce.) per hour.

**Ergotin Wernich-Merck.**—Pure, dried (40)

Purified & dialyzed, dried, aqu. extr. of ergot.—0.7 part of this extr.=1 part of the soft extr.—*Sol.* W.—*Uses*: Intern. & hypoderm., as of ergot.—*Dose* 20 grains (1.3 Gm.).—*Caut.* Keep dry; well closed.

**do. Wernich-Merck.**—Liquid (18)

Dialyzed extr. of ergot.—Reddish-brown liq.—*Uses*: Hypoderm. in all cases where ergot is indie. Gen'ly with W., glycerin & W., or alc. & glycerin. 2 parts abt. equal 1 part of the pure, dried.—*Dose* 60 m (4 Ce.).

**do. Wernich-Merck.**—Soft (30)

Purified & dialyzed soft extr. fr. ergot previously treated successively w. petroleum ether & alc.—Reddish-brown syrupy liq.; this preparation is rich in salts & is given in relatively large doses.—*Sol.* W.—*Uses*: As of ergot. Given also hypoderm.—*Dose* 30 grains (2 Gm.) & upwards.

**Ergotin Wiggers-Merck.**—Pure, dried (550)

Dried alcohol-purified extr. of ergot partially freed fr. oil.—Brownish-red powd.—*Sol.*, warm A. (the solut. may be diluted w. W. without precipitation).—*Dose*  $\frac{1}{3}$ – $1\frac{1}{2}$  grains (0.02–0.1 Gm.).—*Mar. D.* 8 grains (0.5 Gm.) p. d.

**Ergotin Yvon-Merck** (100)

Reddish-brown fld. extr. prepared fr. ergot with dil. solut. tartaric acid, & containing cherry-lauel water; 1 Ce.=1 Gm. powd. ergot.—*Dose*: Intern., 10–20 drops; *subcut.*, 15 m (1 Ce.) p. d., repeated every second or third day.

**Ergotinine Merck.**—Pure, amorphous (9500)

(Sclero-crystallin [Podwysstotzki]).—Alkaloid fr. sclerotium of *Claviceps purpurea*, Tulasne (Ergot of Rye).—1 kilo ergot cont. abt. 1.2 Gm. total ergotinine of which  $\frac{2}{3}$  is amorph., &  $\frac{1}{3}$  cryst.—Yellowish, amorph. powd.—*Sol.* A., E., C.; sl. W.—*Melt.* 138° C.—*Recom.* as Ecboic, Hemost., &c., like ergotin;  $\frac{1}{210}$  grain (0.00025 Gm.) *subcut.* is said to suffice to cause powerful

uterine contractions (Tanret). *Acc.* to Kobert, therapeutic action is v. slight.

**Ergotinine Merck.**—Pure, cryst. (12500)

$C_{35}H_{40}N_4O_6$ .—Yellowish cryst.—*Sol.* A., E., C.; insol. W.—*Melt.* 205° C.—*Recom.* as Ecboic, Hemost., &c., like ergot (Tanret). *Acc.* to Kobert, inert.

**Ergotinine Citrate Merck** (10000)

$C_{35}H_{40}N_4O_6 \cdot C_6H_5O_7$ .—Grayish-yellow powd.—*Sol.* W.—*Uses*: Instead of ergotin in vasomotor neuroses, cephalalgia, neuralgia, Basedow's disease, & enuresis.—*Dose*: *Inf.* 10–20 m (0.6–1.3 Ce.) of a 1% aqu. solut. *subcut.*

*Erica.*—see **Calluna**

*Ericin.*—see **Mesotan**

**Erigeron**

(Fleabane; Horseweed; Seabious).—Lvs. & tops of *Erigeron canadensis*, L. Compositae.—*Habit.*: Northern & central U. S.—*Etymol.*: Grk. "eri," early, & "geron," old, referring to the hoary appearance of some species. "Canadensis" refers to its original habitat.—*Constit.*: Volat. oil; tannin; gallic acid; bitter extractive.—*Diuret.*; *Anticatarrh.*; *Astring.*—*Uses*: Dropsy, & diseases of genito-urinary tract.—*Dose*: Fld. extr. 30–60 m (2–4 Ce.).

**Eriodictyon.**—U. S. P.

(Yerba Santa; Consumptive's Weed; Bear's Weed; Mountain Balm; Gum Plant).—Dried lvs. of *Eriodictyon Californicum* (Hooker & Arnott), Greene, (E. glutinosum, Benth.). Hydrrophyllaceae.—*Habit.*: U. S. (California).—*Etymol.*: Grk. "erion," wool, & "diktyon," a net, referring to the wooly, net-veined lvs. Lat. "glutinosus," viscous, i.e., the lvs. & stem are resinous & sticky. "Californicum" refers to California, its habitat. "Yerba santa," holy herb, refers to its curative powers.—*Constit.*: Volat. oil; eriodictyonic acid,  $C_{14}H_{18}O_5$  (?); ericolin,  $C_{26}H_{38}O_3$  (Thal); resin.—*Stim.*; *Expector.*; *Bitter Tonic*; *Alterat.*; *Anticatar.*—*Uses*: Coughs, colds, asthma, inflam. of genito-urinary organs; corrigent vehicle for bitter & other disagreeable remedies.—*Doses*: 30–60 grains (2–4 Gm.).—*Alcoh. extr.* 4–12 grains (0.25–0.8 Gm.).—*Fld. extr.* 20–60 m (1.3–4 Ce.).

**Erlicki's Solution**

Solut. 5–10 Gm. copper sulphate & 25 Gm. potass. dichromate in 100 Ce. W.—*Uses*: Fixing & hardening specimens. Acts more rapidly than Müller's Solution (q. v.).

**Erodium**

(Stork's-bill; Pin Clover; Pin-weed; Pin-grass; Filaree).—Whole plant, *Erodium cicutarium*, L'Hérit. Geraniaceae.—*Habit.*: Central & Northern Europe; Asia; widely natur. in U. S.—*Etymol.*: Fr. Grk. "erodios," heron, referring to the bill-shaped form of the capsule; "cicutarius" having lvs. resembling those of *cicuta*.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



—*Uses*: Diuret. (in drops); Hemostat. (in metror. & menor.). —*Doses*: 4 fl. dr. (15 Ce.) of 1-12 decoct. every 2 hr. —*Aqu. extr.* 60 grains (4 Gm.) per day. —*Fl. extr.* 15-60 fl. (3-4 Ce.).

*Eryglucin.*—see **Erythrol**

## Eryngium

(Button Snake-root; Rattlesnake's Master; Water Eryngo; Eryngo).—Root of *Eryngium yuccifolium*, Mich.—*Habit*: U. S.—*Etymol.*: "Erygge," the Grk. name for a thistle-like plant. Or, fr. Grk. "erugge," to cruet, or belch, referring to its ancient use in flatulence. —*Diaphor.*; *Expector.*; *Refriger.*—*Uses*: Febrile condit., colds, coughs, snake-bite, &c.—*Dose*: Fl. extr. 30-60 fl. (2-4 Ce.).

*Eryngo.*—see **Eryngium**

## Erythraea

(European Centaury; Bitter Herb; Bloodwort; Centaury).—Lvs. & tops of *Erythraea Centaureum*, Pers. Gentianaceae.—*Habit*: Europe; U. S.—*Etymol.*: Fr. Lat. "centum," hundred, & "aurum," gold, i.e. the plant was supposed to be of such value as to be worth 100 gold pieces; or, according to Pliny, the name is derived fr. the centaur, Chiron, who is said to have cured himself (with the plant) of a wound accidentally received fr. an arrow poisoned with the blood of the hydra. —"Erythraea," fr. Grk. "erythros," red, referring to the color of the flowers.—*Constit.*: Volat. oil; resin. erythrocentaurin (Méhul).  $C_{27}H_{42}O_8$ .—Bitter Tonic; Febrif.—*Uses*: Weak appetite, fever, &c.—*Dose*: Aqu. extr. 5-30 grains (0.3-2 Gm.).

*Erythraea Chilensis.*—see **Canchalagua**

*Erythrin.*—see **Acid Erythric**

## Erythrina Bark

(Coral-tree Bark).—*Erythrina Corallodendron*, L. Leguminosae.—*Habit*: Tropical Asia & America.—*Etymol.*: Fr. Grk. "erythros," red, "korallion," coral, & "dendron," tree, because of the handsome red color of the flowers.—*Constit.*: Erythrine; saponin (migarhin-Young(?)).—*Uses*: Brazilians give small doses as a hypnotic; in the Philippines it is used as a diuret. & purgat.—*Dose*: Wineglassful of decoct. (1:250).

*Erythrine, Natural.*—see **Cobalt Arsenate**

*Erythrite (or -itol).*—see **Erythrol**

*Erythrobenzin.*—see **Fuchsine**

*Erythroglucin.*—see **Erythrol**

## Erythrol Merck (200)

(Erythrite; Erythritol; Erythromannite; Erythroglucin; Eryglucin; Phycite).—Deriv. of erythrin found in many lichens (*Rocella* species). — $C_4H_{10}O_4$ , or,  $CH_2(OH)CH(OH)CH(OH)CH_2(OH)$ .—Wh. cryst.—*Sol.* W.; sl. in A.—*Melt.* 120-122° C., after previous softening.—*Boil.* 330° C.

## Erythrol Tetranitrate Merck. — Compr. Tablets

Tablets each containing  $\frac{1}{2}$  grain (0.03 Gm.) erythrol tetranitrate (tetranitrol),  $CH_2(ONO_2)_2$  ( $CH_2(ONO_2)_2 \cdot CH_2(ONO_2)_2$ ).—Vasodilator like nitroglycerin.—*Uses*: Angina pectoris, asthma, cardiac diseases, chloro, nephritis, &c.—*Dose*: 1-2 tablets every 6 hrs.—Erythrol tetranitrate is marketed only in tablet form, as the pure substance is explosive.

*Erythromannite.*—see **Erythrol**

## Erythrophleine Hydrochloride Merck (1500)

Salt of alkaloid fr. bark *Erythrophloeum guineense*, Don. (Sassy Bark).—Yellowish-wh., amorph. powd.—*Sol.* W., A.—Local Anesth.; Cardiac Tonic; exhibits pure digitalis-like action.—*Uses*: Chiefly in ophthal., in 0.05-0.25% solut.—*Dose*:  $\frac{1}{30}$ - $\frac{1}{15}$  grain (0.002-0.004 Gm.).

*Erythrophloeum Guineense.*—see **Sassy Bark**

## Erythroretin Merck (205)

(Red Rhubarb Resin; Rhabarbercin).—Resin. bitter prin. fr. *Rheum officinale*, Baillon (Rhubarb).—Brownish-black, resinous subst'e.—*Sol.* A.; sl. in E.

## Erythrosine

Sodium salt of tetraiodofluorescein (iodeosine).—Brown powd.—*Sol.* W.—*Uses*: Coloring & as dye.

*Erythrosine G.*—see **Iodeosine G**

## Erythroxylin (Eclectic) (100)

Alcoh. extr. of Erythroxylin Coca, Lamarek.—Brown powd.—*Uses*: Stim., Tonic.—*Dose*:  $\frac{1}{4}$ -1 grain (0.015-0.06 Gm.).

*Erythroxylin.*—see **Coca**

## Esbach's Reagent.—For albumin

Solut. of 1 Gm. picric acid & 2 Gm. citric acid in 100 Ce. W.—Gives a yellow ppt. w. albumin.

## Escorcin Merck (1750)

(Escorcinol; Æscorcin).—Fr. esculetin (a decomposition-product of esculin fr. the bark of the horse-chestnut), by sod. amalgam.— $C_6H_4O_4$ .—Brown powd.—*Sol.*, in alkalies, green, changing to red.—*Uses*: Discov. defects in cornea & lesions of conjunc. epith.; red color of such more distinct on iris than green color of fluorescein (Fröhlich).—*Appl.* 1 drop 10-20% aqu. solut.

*Escorcinol.*—see **Escorcin**

## Esculetin (900)

(Æsculetin).—Fr. esculin by emulsin or dil. acids.— $C_6H_4O_4 + H_2O$ , or,  $(OH)_2 \cdot C_6H_2(CH_2CH) \cdot CO \cdot O + H_2O$ .—V. thin, shin. need., or scales. Solutions fluoresce faint blue.—*Sol.* W., A.—*Melt.*, above 270° C., w. decomp.

## Esculin Merck (275)

(Polychrome; Æsculin; Esculinic Acid; Bicolorin; Enallachrom).—Fr. bark *Æsculus Hippo-*

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



castanum, L. (Horse-chestnut).— $C_{15}H_{16}O_6 + 1\frac{1}{2}H_2O$ , or,  $C_6H_{16}O_5 \cdot C_9H_{16}O_1 + 1\frac{1}{2}H_2O$ .—Wh. cryst.; bitter taste. Solutions fluoresce faint blue.—*Sol.* W., A., C.; v. in dil. alkalies.—*Melt.* 160° C., w. decomp.—*Antiper.*—*Uses:* Inst. of quinine in interm. fever.—*Dose* 5–15 grains (0.3–1 Gm.).

**Eseridine Merck.**—Pure (4000

Alkaloid found w. physostigmine in seed *Physostigma venenosum*, Balf. (Calabar Bean).— $C_{15}H_{23}N_3O_3$ .—Colorl. cryst.—*Sol.* A., E., C.—*Melt.* 132° C.—*Lax.*; *Motor-excit.*—*Uses:* As of physostigmine (but only  $\frac{1}{6}$  as powerful as this), as lax. in colic in horses.

**Eseridine Tartrate Merck** (3500

$C_{15}H_{23}N_3O_3 \cdot C_4H_6O_6$ .—Wh. powd. or cryst.—*Sol.* W., A.

*Eserine* & salts.—see under **Physostigmine**

*Eserine-Pilocarpine*.—see **Physostigmine-Pilocarpine**

*Essence Mirbane*.—see **Nitrobenzene**

*Essence Niobé*.—see **Methyl Benzoate**

**Estoral** (20

Boric-acid Menthol Ester.— $B(C_{10}H_{19}O)_3$ .—Colorl., tastel., cryst. powd.; faint menthol odor.—*Decomp.* into its constit. on contact w. mucus surfaces or when in solut.—*Uses:* Chronic nasal catarrh, by insuffl. w. equal wt. milk sugar.

*Etching Ink*.—see **Diamond Ink**

*Ethal*.—see **Alcohol Cetylic**

*Ethanediamide*.—see **Oxamide**

*Ethanedioxyureid*.—see **Acid Parabanic**

*Ethenenaphthene*.—see **Acenaphthene**

**Ether Merck.**—Sp. Gr. 0.716–0.717 at 25° C.—U. S. P.—For Anesthesia (2

(Ethyl Oxide; Ethylic, or Sulphuric, Ether).—*Abt.* 96% by wt. ethyl oxide,  $(C_2H_5O)_2$ , & *abt.* 4% alcohol cont. a little water.— $C_4H_{10}O$ , or,  $C_2H_5 \cdot O \cdot C_2H_5$ .—V. light, transp., colorl., diffus., inflam., mobile liq.; pleas. character., arom. odor; burn., sweet. taste.—*Misc.* A., C., B., benzin, oils: 10 W. at 25° C.—*Boil.* 35° C. (35.5° C., U. S. P.).—*Inhal.* Anesth.; *Analg.*; *Antispas.*; *Stim.*—*Uses:* *Intern.* by inhal. for prod. anesth. in surg. operat.; *gastrodynia*, colic, tet., nerv. affect., dyspnea, &c.—*Hypoderm.*, syncope, collapse, &c.—*Extern.*, earache, toothache, neural., & local pain; appl. also makes easier the reduction of hernias.—*Techn.*, solvent for ethereal oils, fats, resins, &c.; in phot., for manuf. collodion, smokeless powd., & many chemical operations.—*Dose* 5–60 M (0.3–4 Cc.) several t. p. d.—*Antid.*, stom., siphon or emetic, free supply of fresh air; ammonia, strychnine inj. ( $\frac{1}{60}$  grain [0.001 Gm.]), mustard plaster over heart, artif. respiration.—*Caut.* Keep well

stoppered, cool & fr. fire. Administer only by daylight or electric light. Vapor highly inflammable.

*Note.*—This ether is prepared exceptionally pure so as to fully adapt it for anesthesia.

**Ether Merck.**—U. S. P. 1880 (2

do. Merck.—Washed (2

**Ether Merck.**—Reagent (2

(Ethylic Ether).— $C_2H_5 \cdot O \cdot C_2H_5$ .—Clear, colorl., mobile liq.—*Sp. Gr.* 0.720.—*Boil.* 34–36° C.—*Tests:* (Res.) evap. 20 Cc. spontaneously in glass dish—res. must be free fr. odor, should not redden or decolorize moist. litmus, & should compl. volatilize on heat, on W.-bath.—(Ethyl Peroxide;  $H_2O_2$ ;  $O_3$ ) vigor. shake 10 Cc. + 1 Cc. 1:10 solut. KI in gl.-stp. bottle compl. filled; set aside in dark—neither ether nor solut. KI should acquire a color within 1 hr.—(Aldehyde) cover sm. pieces KOH w. ether; set aside in dark—liq. must not acquire yellow color within half hr.—(S Compounds) shake 20 Cc. w. globule Hg 2 min. in gl.-stp. bot.—bright surface of Hg must not be tarnished, nor should black ppt. form.—( $H_2O$ ) 20 Cc. + 1 Gm. anhydr.  $CuSO_4$ ; shake— $CuSO_4$  should not acquire green or blue color.—*Uses:* Solvent, etc.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

do. Merck.—Reagent.—Anhydrous.—Distilled over Sodium (2

In addition to preceding requirements, also following: 15 Cc. ether + freshly-cut piece met. Na; shake in dry bot.—only v. sl. evol. gas, & cut metal. surf. of Na should not compl. lose luster within 6 hrs.—*Uses:* Solvent, etc., partic. where absence of water is necessary.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

*Ether*; *Acetic*, *Acetoacetic*, *Acetylsalicylic*, *Benzzoic*, *Benzoylactic*, *Bromic*, *Butyric*, *Capric* (or *Caprinic*), *Caproic* (or *Capronic*), *Caprylic*, *Carbonic*, *Chlorocarbonic*, *Chloropropionic* (Alpha-), *Cinnamic* (or *Cinnamyllic*), *Citric*, *Cocic* (or *Cocinic*, or *Cocoinic*), *Copainic*, *Cyanacetic*, *Dichloracetic*, *Diiodosalicylic*, *Formic*, *Iodic*, *Lactic*, *Malonic*, *Methylacetoacetic*, *Monobromobutyric*, *Monobromopropionic*, *Monobromosuccinic*, *Monochloracetic*, *Nitric*, *Nitrous*, *Oxanthic*, *Oxalacetic*, *Oxalacetic-diethyl*, *Oxalic*, *Pelargonic*, *Propionic*, *Salicylic*, *Sebacic* (or *Sbacinic*), *Succinic*, *Sulphocyanic*, *Tartaric*, *Trichloracetic*, *Truxillic*, *Valeric* (or *Valeric*, *Iso-*), &c.—see under **Ethyl Acetate**—**Acetoacetate**—**Acetylsalicylate**—**Benzoate**—**Benzoylacetate**—**Bromide**, etc.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Ether, Acetobutylic.*—see **Salacetol**  
*Ether, Amyl or Amylic.*—see **Amyl Oxide**  
*Ether, Amylactic.*—see **Amyl Acetate**  
*Ether, Butyric, Alphamonobromo.*—see **Ethyl Butyrate, Monobromo-, Alpha-**  
*Ether, Carbamic.*—see **Euphorin**  
*Ether, Chloroformic.*—see **Ethyl Chlorocarbonate**  
*Ether, Diactic.*—see **Ethyl Acetoacetate**  
*Ether, Diamyl.*—see **Amyl Oxide**  
*Ether, Diethylcarbonic.*—see **Ethyl Carbonate**  
*Ether, Ethylic.*—see **Ether**  
*Ether, Glycerinic.*—see **Allyl Oxide**  
*Ether, Hydriodic.*—see **Ethyl Iodide**  
*Ether, Hydrobromic.*—see **Ethyl Bromide**  
*Ether, Hydrochloric, Polychlorated.*—see **Ethyl Chloride, Polychlorated**  
*Ether, Hydrocyanic.*—see **Ethyl Cyanide**  
*Ether, Isobutyric.*—see **Ethyl Butyrate, Iso-**  
*Ether, Methyltriethyl.*—see **Ethyl Formate, Ortho-**  
*Ether, Monosalicylic-acid Glycerinic.*—see **Glycosal**  
*Ether, Orthoformic.*—see **Ethyl Formate, Ortho-**  
*Ether, Ozonized.*—see **Hydrogen Peroxide, Ethereal Solution**  
*Ether, Petroleum.*—see **Benzin from Petroleum**  
*Ether, Petroleum, Light.*—see **Canadol**  
*Ether, Phenylamyl.*—see **Amyl Phenate**  
*Ether, Pyroacetic.*—see **Acetone**  
*Ether, Quinine Carbonic.*—see **Euquinine**  
*Ether, Succinyl-succinic.*—see **Ethyl & Succinyl Succinate**  
*Ether, Sulphuric.*—see **Ether**  
*Ether, Thioallylic.*—see **Allyl Sulphide**  
*Ether, Wigger's Anesthetic.*—see **Ethyl Chloride, Polychlorated**  
*Ethers, Isoamyl.*—see under **Amyl**  
*Ethidene Bichloride.*—see **Ethylidene Chloride**  
*Ethiops Antimonialis.*—see **Mercury & Antimony Sulphide**  
*Ethiops Mineral.*—see **Mercury Sulphide, Black**  
*Ethol.*—see **Alcohol Cetyllic**  
**Ethoxycaffeine Merck** (200  
 $C_8H_9(OC_2H_5)_2N_3O_2$ .—Wh. cryst.; silky luster.—*Sol.*, hot A.; E.; solubil. increased by sod. salicyl.—*Melt.* 140° C.—*Uses:* Migraine; trigem. neural., &c.—*Dose* 5-15 grains (0.3-1 Gm.) in wafers, or in solut. w. sod. salicyl. & cocaine hydrochloride.

**Ethyl Acetate Merck.**—Anhydrous (3  
 (Acetic Ether, Vinegar Naphtha).—Fr. Alcohol w. acetic acid, or an acetate by str.  $H_2SO_4$ .— $C_4H_8O_2$ . Gr. 0.911.  $CH_3CO$ .—Colorl., frag. liq.—*Sp. Gr.* 0.9253 at 0° C.—*Misc.* 17 W., all prop., A., E.—*Boil.* 72-77° C.—*Caut.* Keep well stop'd, fr. fire & light!

**do. Merck.**—*Acetic Ether, U. S. P.* *Sp. Gr.* 0.883-0.895 at 25° C. (2

Abt. 90%, by wt. ethyl acetate,  $CH_3COOC_2H_5$ , & abt. 10% alcohol cont. a little water.—Light, inflam., volat., colorl. liq.; frag., acetous odor; character., burn. taste.—*Sol.*, abt. 9 W. at 25° C.; misc. all prop. w. A., E., & oils.—*Boil.*, abt. 72-77° C.—*Stim.*: Antispasmodic.—*Uses:* Intern., nerv. affect. & fainting spells.—*Extern.*, rheumat., & as anesthetic; subcut. as stimulant.—*Techn.*, as flavoring.—*Dose* 10-30  $\Pi$  (0.6-2 c.).

**Ethyl Acetoacetate Merck** (7  
 (Diactic Ether).—Fr. ethyl acetate, by sod. w. acetic acid.— $C_8H_{16}O_4$  or  $CH_3COCH_2COOC_2H_5$ .—Colorl. liq.—*Sp. Gr.* 1.030 at 15° C.—*Boil.* 180-181° C.—*Uses:* Manuf. of antipyrine.

**Ethyl Acetylsalicylate Merck** (12  
 (Acetylsalicylic Ethyl Ester).— $O.CO.CH_3.C_6H_4.COOC_2H_5$ .—Colorl. liq.—*Sp. Gr.* 1.153.—*Boil.* 272° C.

**Ethyl Benzoate Merck** (4  
 (Benzoic Ether).—Fr. alcoh. solut. artif. benzoic acid, by hydrochl. acid, w. heat.— $C_9H_{10}O_2$  or  $C_6H_5COO.C_2H_5$ .—Colorl., aromatic liq.—*Sol.* A.—*Boil.* 212-213° C.—*Uses:* Techn., in perfumery under the name "Esence de Niobé"; largely employed in manuf. of "Peau d'Espagne"; artificial fruit-essence.

**do. Merck.**—Fr. Natural Acid (10

**Ethyl Benzoylacetate Merck** (125  
 (Benzoylacetic-acid Ethyl Ester).—Fr. mixt. ethyl benzoate & acetate, by sodium.— $C_{11}H_{12}O_3$  or  $C_6H_5CO.CH_2COO.C_2H_5$ .—Colorl. liq.; pleas. odor of aceto-acetic ether.—*Boil.* 265-270° C. w. sl. decomp.—*Sp. Gr.* 1.121 at 15° C.

**Ethyl Bromide Merck.**—Highest Purity, Medicinal (3

(Monobromethane; Hydrobromic, or Bromic Ether).— $C_2H_5Br$ .—Colorl., inflam., volat. liq.; burn. taste.—*Sp. Gr.* 1.453-1.457 at 15° C.—*Sol.* A., E., C.; insol. W.—*Boil.* 38-40° C.—Efficient & safe Inhal. & Local Anesthetic; Nerve Sed.—*Uses:* Intern., minor surg.; epilepsy, hyst., &c. It is of great importance to have a pure article for internal use, since with an impure one, alarming after-effects may occur.—*Extern.*, spray in neuralgia, &c.—*Dose* 150-300  $\Pi$  (10-20 Ce.) by inhalation, or 5-10 drops on sugar, or in capsules.—*Caut.* Keep fr. light & air. This is *not* Ethylene Bromide, which is poisonous!

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Ethyl Bromomalonate**

(Monobromomalononic-acid Diethyl Ester).— $\text{CHBr}(\text{COOC}_2\text{H}_5)_2$ .—Colorl. to slightly yellowish liq.—*Sol.* A.—*Boil.* 230–236° w. part. decomp.

**Ethyl Butyrate Merck.—Absolute**

(3)

(Butyric Ether).—Fr. alcohol, by butyric acid & heat.— $\text{C}_4\text{H}_8\text{O}_2$ , or,  $\text{C}_4\text{H}_7\text{COOC}_2\text{H}_5$ .—Colorl. liq.; pineapple odor.—*Sp. Gr.* 0.886 at 15° C.—*Sol.* A.; sl. in W.—*Boil.*, abt. 121° C.

do. Merck.—Highest Purity

(25)

do. Merck.—Concentrated

(2)

**Ethyl Butyrate (Iso-) Merck**

(40)

(Isobutyric Ether).— $\text{C}_4\text{H}_{10}\text{O}_2$ , or,  $(\text{CH}_3)_2\text{CH}.\text{COOC}_2\text{H}_5$ .—Colorl. liq.—*Sp. Gr.* 0.889 at 0° C.—*Boil.* 110–111° C.

*Ethyl Butyrate, Monobromo-, Alpha.*—see **Ethyl Monobromobutyrate, Alpha-**

**Ethyl Caprate Merck**

(250)

(Capric, or Caprinic, Ether; Ethyl Caprate).— $\text{C}_{10}\text{H}_{20}\text{O}_2$ , or  $\text{C}_9\text{H}_{19}\text{COOC}_2\text{H}_5$ .—Colorl. liq.—*Sp. Gr.* 0.870 at 15° C.—*Boil.*, abt. 243° C.—*Misc.* A., E., C.—*Uses:* Scientific purposes, & techn. in manuf. wine-bouquets, cognac essence, &c.

*Ethyl Caprate.*—see **Ethyl Caprate**

**Ethyl Caproate Merck**

(100)

(Ethyl Capronate; Caproic, or Capronic, Ether).—Fr. absolute alcohol & normal caproic acid, by  $\text{H}_2\text{SO}_4$ .— $\text{C}_8\text{H}_{16}\text{O}_2$ , or,  $\text{C}_7\text{H}_{15}\text{COOC}_2\text{H}_5$ .—Colorl. to yellowish liq.; pleas. odor.—*Sp. Gr.* 0.872 at 15° C.—*Boil.* 167° C.

*Ethyl Capronate.*—see **Ethyl Caproate**

**Ethyl Caprylate Merck**

(250)

(Ethyl Octoate; Caprylic Ether).— $\text{C}_{10}\text{H}_{20}\text{O}_2$ , or,  $\text{CH}_3(\text{CH}_2)_6\text{COOC}_2\text{H}_5$ .—Colorl. liq.; pineapple odor.—*Sp. Gr.* 0.873 at 15° C.—*Sol.* A.—*Boil.* 205–206° C.

**Ethyl Carbamate Merck**

(10)

(Urethane; Ethylurethane).—Fr. carbonic ether, by amm., or fr. ethyl alc., by urea w. heat.— $\text{C}_3\text{H}_7\text{NO}_2$ , or,  $\text{CO}(\text{NH}_2)\text{OC}_2\text{H}_5$ .—Colorl. cryst.; odorl.; saltpeter-like taste.—*Sol.* 0.6 A., 1 W., 1 E., 1.3 C., 3 G., at 25° C.—*Melt.* 47.5–50° C.—*Boil.*, abt. 180° C.—*Hypn.*; Antispasm.; Sed.—*Uses:* Insom., eclampsia, nerv. excit., tetanus, & as antid. in strychnine, resorcinol, & picrotoxin poison. Does not interfere w. circulation, or secretion; no unpleas. after-effects; in large doses increases respiration without affecting pulse or temp., & produces a mild, natural sleep. In eclampsia it should be given per enema.—*Doses:* Sedative, children, 4–8–15 grains (0.25–0.5–1 Gm.) 1–4 t. p. d.; adults, *hypn.*, 30–45 grains (2–3 Gm.) in 3 portions at  $\frac{1}{2}$ –1 hr. intervals, in 10–70 solut.—*Mar. D.* 75 grains (5 Gm.) single, 150 grains (10 Gm.) daily.—*Incomp.*, alkalies, acids, antipyrine, butyl-chloral hydrate, camphor, phenol, euphorin, menthol, naphthol, resorcinol, salol, or thymol, in trituration.

*Ethyl Carbolate.*—see **Phenetol**

**Ethyl Carbonate Merck**

(60)

(Carbonic, or Diethylcarbonic, Ether; Normal [or Neutral] Carbonic Ether).—By distil. ethyl potass. carbonate w. sulphate.— $\text{C}_2\text{H}_5\text{O}_2$ , or,  $(\text{C}_2\text{H}_5)_2\text{CO}_3$ .—Colorl., inflam. liq.; pleas. odor.—*Sp. Gr.* 0.978 at 15° C.—*Sol.* A., E.—*Boil.* 126° C.—*Caut.* Keep fr. fire.

**Ethyl Chloride Merck**

(23)

(Monochlorethane; Kelene; Chelene).—Fr. alc. by hydrochl. acid.— $\text{C}_2\text{H}_5\text{Cl}$ .—Gas at ord. temp. & press.; compressed, colorl., v. volat. liq.; burns green.—*Sp. Gr.* 0.911–0.916 at 5° C.—*Sol.* A.—*Boil.* 12.5–13° C.—*Loc. Anesth.*—*Uses:* Minor & dental surg., & neural., as spray; heat of hand forces the stream fr. the tubes. Hold 6–10 inches (15–25 Cm.) away from thoroughly cleansed surface to be sprayed; also as inhal. anæsthet. for producing general narcosis.—*Caut.* Highly inflammable!

**Ethyl Chloride Polychlorated**

(Wiggers's Anæsthetic Ether; Polychlorated Hydrochloric Ether).—Mist. of chlorinated ethyl chlorides, chiefly tri-, tetra-, & pentachlorethane.—Clear, colorl. liq.; ethereal, arom. odor, faintly resembl. that of camphor; sweet, arom. taste.—*Misc.*, all prop., A., E.—*Loc. Irrit.*; *Anesth.*—*Uses:* Chiefly extern., in rheum., chronic sciatica, & o. forms of neural.—*Caut.* Keep in the dark.

**Ethyl Chlorocarbonate Merck**

(8)

(Chlorocarbonic Ether; Ethyl Ester of Chloroformic Acid; Chloroformic Ether; Ethyl Chloroformate).—Fr. alc., by carbonyl chloride.— $\text{C}_2\text{H}_5\text{ClO}_2$ , or,  $\text{ClCOOC}_2\text{H}_5$ .—Colorl., mobile liq.; suffoc. odor & pung. taste.—*Sp. Gr.* 1.44 at 15° C.—*Sol.* A.—*Boil.* 94° C.

*Ethyl Chloroformate.*—see **Ethyl Chlorocarbonate**

**Ethyl Chloropropionate (Alpha-) Merck**

(15)

(Alphachloropropionic Ether; Ethylic Ester of Alphachloropropionic Acid).—Fr. abs. alc., by alphachloropropionyl chloride.— $\text{C}_5\text{H}_9\text{ClO}_2$ , or,  $\text{CH}_3\text{CHCl.COOC}_2\text{H}_5$ .—Arom. liq.—*Sp. Gr.* 1.087 at 15° C.—*Boil.* 146° C.

**Ethyl Cinnamate Merck**

(30)

(Cinnamic, or Cinnamyl, Ether).—By distil. cinnamic & sulphuric acids w. alcohol.— $\text{C}_{11}\text{H}_{12}\text{O}_2$ , or,  $\text{C}_2\text{H}_5\text{C}_6\text{H}_7\text{O}_2$ .—Limpid, oily liq.; pleas. strawberry odor.—*Sp. Gr.* 1.0499 at 15° C.—*Sol.* A., E.—*Boil.* 271° C.—*Uses:* Perfum. & confection.

**Ethyl Citrate Merck**

(20)

(Normal Ethyl Citrate; Triethyl Ester of Citric Acid; Citric Ether).—Fr. alc. solut. citric acid by hydrochl. acid.— $\text{C}_8\text{H}_{12}\text{O}_7$ , or,  $(\text{C}_2\text{H}_5)_3\text{C}_6\text{H}_5\text{O}_7$ .—Colorl., oily liq.; odorl.; bitter.—*Sp. Gr.* 1.143 at 15° C.—*Sol.* W., A., E.—*Boil.* 294° C.

**Ethyl Cocainate Merck**

(15)

(Cocoinic, Cocoinic, or Cocinic, Ether; Cognac Ether).—By action of dry HCl gas on solut. of

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine. 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



fatty acids of cocoa-nut oil in A.— $C_{15}H_{25}O_2C_2H_5$ .  
—Yellow, only liq.; odor of russet apples.—Sp. Gr. 0.855 at 15° C.—*Uses*: Manuf. cognac.

**Ethyl Copaivate Merck** (90)  
(Copaivate Ether).— $C_{20}H_{20}O_2$ .—Yellow liq.; odor of balsam copaiba.

**Ethyl Cyanacetate Merck** (40)  
(Cyanacetic Ether; Ethylic Ester of Cyanacetic Acid).—Fr. alc. solut. cyanacetic acid, by  $HCl = C_2H_5NO_2$ , or,  $CNCH_2COOC_2H_5$ .—Colorl. liq.—Sp. Gr. 1.066 at 15° C.—*Boil.* 207° C.

**Ethyl Cyanide Merck** (90)  
(Propionitrile; Propanenitrile; Hydrocyanic Ether).—Fr. barium ethylsulphate w. potass. cyanide by distill'n.— $C_2H_5CN$ .—Mobile, colorl. liq.; charact., ether. odor.—Sp. Gr. 0.801 at 0° C.—*Sol.* W., A.—*Boil.* 97–98° C.—*Caut.* Keep well stoppered. Poison!

**Ethyl Dichloracetate Merck** (50)  
(Dichloroacetic Ether).—By hydrated chloral & potassium cyanide in abs. alc.— $C_2H_4Cl_2O_2$ , or,  $CHCl_2COOC_2H_5$ .—Colorl. liq.—Sp. Gr. 1.283 at 15° C.—*Boil.*, abt. 156° C.

**Ethyl Diiodosalicylate Merck** (20)  
(Diiodosalicylic Ether; Ethyl Diiodo-ortho-benzoate).— $C_{10}H_8O_3I_2$ , or,  $C_6H_4I_2(OH).COOC_2H_5$ .—Wh. cryst.—*Sol.* A., fixed oils, B.; sl. W.—*Melt.* 132° C.—*Uses*: Succeed. for iodoform in surg.

**Ethyl Formate Merck.—Absolute** (3)  
(Formic Ether).—Fr. alc. w. sod. formate & sulph. acid.— $C_2H_5O_2$ , or,  $HCOO.C_2H_5$ .—Mobile, colorl. liq.; peach-kernel odor.—Sp. Gr. 0.917 at 15° C.—*Sol.* E., 9 W., all prop. A.—*Boil.*, abt. 51° C.—*Hypn.*: Analg.—*Uses*: As inhal. in inflam. of respiratory passages.—*Intern.*, as hypnot.—*Techn.*, as flavoring.—*Dose* 1–2 fl. dr. (4–8 Cc.).—*Caut.* Keep well stoppered in contact w. calc. chloride.

**do. Merck.—Highest Purity** (10)

**do. Merck.—Concentrated** (3)

Alcoh. solut. containing abt. 20%  $HCOO.C_2H_5$ .  
—*Uses*: Manuf. artif. rum & arrak, & essences.

**do. — Diluted** (1)

10%  $HCOO.C_2H_5$ .

**do. — Commercial** (1)

Impure ethyl formate.—Colorl. liq.—Sp. Gr. 0.922 at 15° C.—*Uses*: Manuf. artif. cognac & rum.

**Ethyl Formate (Ortho-) Merck** (40)  
(Orthoformic Ether; Tribasic Formic Ether; Methenyltriethyl Ether).—Fr. chloroform, by sodium ethylate.— $C_2H_5O_3$ , or,  $CH(OC_2H_5)_3$ .—Colorl. liq.; str'ly arom. odor.—Sp. Gr. 0.896 at 15° C.—*Boil.* 145–146° C.

**Ethyl Green.**—see **Brilliant Green**

**Ethyl Hydroxide.**—see **Alcohol**

**Ethyl Iodide Merck** (8)

(Hydriodic Ether; Monoiodoethane).—By act. of alc. solut. iodine on alc. solut. phosphorus.— $C_2H_5I$ .—Clear, colorl., neutr. liq.; turns brown on keeping.—Sp. Gr. 1.94 at 15° C. (commercial grades, 1.92–1.94).—*Sol.* A., E.; insol. W.—*Boil.* 70–75° C.—*Alter.*: Antispasmodic; Stim.; Anesth.—*Uses*: *Intern.*, chron. rheum., scrof., second. syph., chron. bronch., asthma, chron. laryngitis, & by inhal. in bronch. troubles.—*Extern.*, in 10–20% oint. — *Techn.*, in organic chem., in manuf. certain aniline dyes.—*Dose* 5–15 M (0.3–1 Cc.) several t. p. d., in caps. or on sugar.—*Inhal.* 10–20 M (0.6–1.3 Cc.).—*Caut.* Keep fr. air, in contact w. sm. amt mercury.

N. B.—Even in diffused daylight Ethyl Iodide decomposes quite rapidly, the light liberating iodine which colors the ether. When not exposed to light at all, the decomposition is very slow, and with the least practicable exposure, by care in using it, it is not rapid. The decomposition is rendered still slower by the presence in each vial of about 10 drops of a very dilute solution of soda. When deeper than a pale wine-color, it should be shaken up with 5 or 10 drops of a very dilute solution of soda.

**Ethyl Isovalerate.**—see **Ethyl Valerate**

**Ethyl Lactate Merck** (25)

(Lactic Ether; Ethyl Ester of Lactic Acid).—Fr. calc. lactate w. potass. ethylsulphate.— $C_5H_{10}O_3$ , or,  $C_2H_5C_3H_5O_3$ .—Colorl., limp. liq.—Sp. Gr. 1.031 at 19° C.—*Sol.* W.—*Boil.* 154° C.—*Hypn.*: Sed.—*Dose* 8–15 M (0.5–1 Cc.) several t. p. d.—*Caut.* Keep well stoppered.

**Ethyl Malonate Merck** (15)

(Malonic Ether; Diethyl Ester of Malonic Acid).—Fr. ca-c. malonate, abs. alc., & hydrochl. acid w. heat.— $C_7H_{12}O_4$ , or,  $(C_2H_5)_2C_3H_2O_4$ .—Colorl. liq.—Sp. Gr. 1.061 at 15° C.—*Boil.* 198° C.

**Ethyl Monobromobutyrate (Alpha-) Merck** (25)

(Alphamonobromobutyric Ether; Alphamonobromated Normalbutyric Ether).— $C_6H_{11}BrO_2$ , or,  $CH_3CH_2CHBr.COOC_2H_5$ .—Colorl. liq.—Sp. Gr. 1.345 at 12° C. *Boil.* 178° C.

**Ethyl Monobromopropionate (Alpha-) Merck** (35)

(Alphamonobromopropionic Ether).—Fr. bromopropionyl bromide, by abs. alc.— $C_5H_9BrO_2$ , or,  $CH_3CHBr.COOC_2H_5$ .—Colorl. liq.—Sp. Gr. 1.396 at 11° C.—*Boil.*, abt. 162° C.

**Ethyl Monobromosuccinate Merck** (200)

(Diethylmonobromosuccinic Ether).— $C_8H_{13}BrO_4$ , or,  $(C_2H_5COO)_2CH_2CHBr$ .—Colorl. liq.—*Boil.* 226° C.—Local irritant.

**Ethyl Monochloroacetate Merck** (12)

(Monochloroacetic Ether; Ethyl Ester of Monochloroacetic Acid).—By heat. chloroacetic acid, alc., &  $H_2SO_4$ .— $C_4H_7ClO_2$ , or,  $CH_2Cl.COOC_2H_5$ .—Colorl. liq.; ether. odor; burn. taste.—Sp. Gr. 1.159 at 15° C.—*Boil.* 143–146° C.—*Caut.* Vapors injure the eyes!

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Ethyl Mustard Oil.**—see **Ethyl Thiocarbimide**

**Ethyl Nitrate Merck** (18  
(Nitric Ether).—Fr. alc. & urea nitrate w. nitric acid.— $C_2H_5NO_3$ .—Colorl., inflam. liq.; pleas. odor; sweet taste.—Sp. Gr. 1.116 at 15° C.—*Misc. A.*, *E.*—*Boil.* 86° C.

**Ethyl Nitrite.**—True—15% (4  
(Nitrous Ether).—Solut. of 15%  $C_2H_5NO_2$  in ethyl alcohol.—Yellowish, highly arom., ethereal, inflam., exceed. volat. liquid.—Sp. Gr., abt. 0.82 at 15° C.—*Uses:* In form of Spirit of Nitrous Ether, which see.—*Caut.* Best kept in sealed tubes, in cold place.

**Ethyl Octoate.**—see **Ethyl Caprylate**

**Ethyl Oenanthane Merck.**—Finest, limpid (120  
(Oenanthe Ester, or Ether; Oil Cognac).—Mixt. of capric, caprylic, & butyric, esters of isoamyl alcohol.—Clear, colorl. oil.—*Sol.* A., *E.*, *C.*—*Uses:* In manuf. artif. cognac.

do. Merck.—Natural, green (35  
Fr. wine lees.

do. Merck.—Rectified, white (90

**Ethyl Orange**

(Sodium Paradiethylamidoozobenzenesulphonate).—*Uses:* As indicator, like methyl orange.

**Ethyl Oxalacetate Merck** (75  
(Oxalacetic Ester, or Ether; Oxalacetic diethyl Ester).—Fr. ether. solut. oxalic & acetic ethers, by metallic sod.— $C_2H_5O_2$ , or,  $(C_2H_5)_2C_2H_2O_5$ .—Colorl., oily liq.—Sp. Gr. 1.159 at 23° C.—*Boil.* 132° C. at 21 Mm.

**Ethyl Oxalate Merck.**—Pure (10  
(Diethyl Oxalate; Diethyl Ester of Oxalic Acid; Oxalic Ether).—Boil. together oxalic acid & alc.; then distil.— $C_2H_5O_4$ , or,  $(C_2H_5)_2C_2O_4$ .—Colorl., oily liq.; flbl. odor.—Sp. Gr. 1.055 at 15° C.—*Sol.* A.—*Boil.* 186° C.

**Ethyl Oxide.**—see **Ether**

**Ethyl Pelargonate Merck** (10  
(Pelargonic Ester, or Ether).—Mixt. of var. essences.—*Uses:* Artif. quince essence; 1 part pelargonic ether & 20 parts alcohol constitute "Cognac Essence."

**Ethyl Phenate.**—see **Phenetol**

**Ethyl Propionate Merck** (20  
(Propionic Ester, or Ether).— $C_5H_{10}O_2$ , or,  $C_2H_5COOC_2H_5$ .—Colorl. liq.—Sp. Gr. 0.896 at 15° C.—*Boil.* 98° C.

**Ethyl Propionate, (Alpha) Monobromo.**—see **Ethyl Monobromopropionate**

**Ethyl Rhodanide.**—see **Ethyl Sulphocyanate**

**Ethyl Salicylate Merck** (15  
(Salicylic Ester, or Ether).— $C_9H_{10}O_3$ , or,  $C_2H_5OH.COOC_2H_5$ .—Colorl. liq.—Sp. Gr. 1.135 at 15° C.—*Sol.* A.—*Boil.* 231° C.

**Ethyl Sebacate Merck** (25  
(Sebacic or Sebacinic Ester).— $C_{14}H_{26}O_4$ , or,  $C_8H_{16}(COOC_2H_5)_2$ .—Colorl. to yellowish liq.—Sp. Gr. 0.967 at 15° C.—*Boil.* 307–308° C.

**Ethyl Succinate Merck** (30  
(Succinic Ester, or Ether; Ethylsuccinic Ester; Diethyl Succinate; Normal Ethyl Succinate).—Fr. alc. solut. succinic acid, by hydrochl. acid.— $C_8H_{14}O_4$ , or,  $C_2H_5(COOC_2H_5)_2$ .—Colorl., oily liq.; darkens by age; odor arom.—Sp. Gr. 1.044 at 15° C.—*Boil.* 215–217° C.

**Ethyl Succinate, Monobromo.**—see **Ethyl Monobromosuccinate**

**Ethyl Sulphide Merck** (70  
(Diethyl Sulphide).—Fr. potass. ethylsulphate, by potass. monosulphide.— $C_4H_{10}S$ , or,  $(C_2H_5)_2S$ .—Colorl., oily liq.; garlic odor.—Sp. Gr. 0.837 at 20° C.—*Sol.* A.—*Melt.* 92° C.—*Uses:* Solvent for anhydrous mineral salts.

**Ethyl Sulphocyanate Merck** (50  
(Ethyl Rhodanide; Sulphocyanic Ester, or Ether).—Fr. ethyl chloride, by conc. solut. potass. sulphocyanate.— $C_3H_5NS$ , or,  $NC.SC_2H_5$ .—Mobile, colorl. oil; pung. disagreeab. odor of mercaptan.—Sp. Gr. 1.033 at 0° C.—*Misc. A.*, *E.*—*Insol.* W.—*Boil.* 142° C.

**Ethyl Tartrate Merck** (30  
(Normal Ethyl Tartrate; Tartaric Ester, or Ether).—Fr. alc. solut. of tartaric acid, by dry hydrochl. acid.— $C_8H_{14}O_6$ , or,  $(C_2H_5)_2C_2H_2O_6$ .—Thick, oily, colorl. liq.; odorl.—Sp. Gr. 1.209 at 15° C.—*Sol.* A.—*Boil.* 280° C.

**Ethyl Thiocarbimide Merck** (275  
(Ethyl Mustard Oil).—Fr. cyanic ether & phosphorus pentachloride w. heat.— $C_2H_5NS$ , or,  $C_2H_5N:CS$ .—Pung., colorl. liq.; inflames the tongue.—Sp. Gr. 1.019 at 0° C.—*Boil.* 133° C.—Local Irritant.—*Uses:* Extern., rheum., neural., & o. local pain. affections.

**Ethyl Trichloracetate Merck** (20  
(Trichloroacetic Ether).—Fr. alcohol by trichloroacetyl chloride.— $C_4H_7Cl_3O_2$ , or,  $C.Cl_3COOC_2H_5$ .—Colorl., oily liq.; peppermint odor.—Sp. Gr. 1.369 at 15° C.—*Boil.* 164° C.

**Ethyl Truxillate (Alpha-) Merck** (250  
(Truxillic Ester, or Ether; Diethyl Truxillate).—Diethyl ester of truxillic acid fr. Truxillo coca leaves.— $C_{14}H_{19}O_4(C_2H_5)_2$ .—Wh. need.—*Sol.*, sl. A.—*Melt.* 146° C.

**Ethyl Valerate Merck** (7  
(Isovaleric Ester, or Ether; Ethyl Isovalerianate; Ethyl Ether of Isovaleric Acid).—React. prod. of sod. isovalerate, alc., & sulphuric acid.— $C_7H_{14}O_2$ , or,  $(CH_3)_2CH.CH_2.COOC_2H_5$ .—Colorl. liq.; when dil., pleas., fruity odor.—Sp. Gr. 0.871 at 15° C.—*Boil.*, abt. 134° C.—Antispasm.; Sedat.—*Uses:* Nerv. affect., partic. nerv. asth-

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Nyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



ma.—*Techn.*, alc. solut. used also as flavoring for confectionery & beverages.—*Dose* 1-2 drops several t. p. d., in capsules.

**Ethyl Valerate Merck.**—Highest Purity (15

**Ethylacetanilide Merck** (60

(Acetethylanilide).—Fr. ethylaniline & acetyl chloride w. heat.— $C_{10}H_{13}NO$ , or,  $C_6H_5N(C_2H_5)_2 \cdot C_2H_3O$ .—Wh. cryst.—*Sol.* A., E.—*Melt.*  $50^\circ C$ .—Antipyr.; Analg.

**Ethylamine Merck.**—Anhydrous (80

(Amidoethane; Aminoethane).—Fr. cyanic, or cyanuric, ether, by potass. hydroxide.— $C_2H_5N$ , or  $C_2H_5 \cdot NH_2$ .—Colorl., inflam. liq.; pung., amm. odor; burn. taste; bites tongue.—*Sp. Gr.* 0.7013 at  $4^\circ C$ .—*Sol.* W.—*Boil.*  $19^\circ C$ .

do. Merck.—33% Solution (30

Affords w. uric acid compounds very easily soluble, hence recom. in treatment of gout.

**Ethylamine Chloride Merck** (40

(Ethylammonium Chloride; Monoethylamine Hydrochloride).—Fr. ethyl chloride by boil. w. alc. amm.— $C_2H_5NCl$ , or,  $C_2H_5 \cdot NH_2 \cdot HCl$ .—Colorl. cryst.—*Sol.* W., A.—*Melt.*  $76-80^\circ C$ .—*Caut.* Keep well stoppered.

**Ethylamine Iodide Merck** (200

(Ethylammonium Iodide; Monoethylamine Hydroiodide).—Fr. boil. ethyl iodide & abs. alc. by amm.— $C_2H_5NI$ , or,  $C_2H_5 \cdot NH_2 \cdot HI$ .—Colorl. cryst.—*Sol.* W., A.—*Caut.* Keep dry, fr. light.

**Ethylamine Sulphate Merck** (50

(Ethylammonium Sulphate; Monoethylamine Sulphate).— $C_4H_{16}N_2SO_4$ , or,  $(C_2H_5 \cdot NH_2)_2 \cdot H_2SO_4$ .—Gummy mass.—*Sol.* W., A.—*Caut.* Keep well stoppered.

*Ethylammonium Chloride.*—see **Ethylamine Chloride**

*Ethylammonium Iodide.*—see **Ethylamine Iodide**

*Ethylammonium Sulphate.*—see **Ethylamine Sulphate**

**Ethylaniline Merck** (7

(Monoethylaniline).—React.-prod. of aniline w. ethyl bromide.— $C_8H_9N$ , or,  $C_6H_5NH \cdot C_2H_5$ .—Colorl. liq. becoming brown on exposure to air.—*Sp. Gr.* 0.954 at  $18^\circ C$ .—*Boil.*  $204^\circ C$ .—*Caut.* Keep fr. air & light.

do. Merck.—Highest Purity (8

**Ethylbenzene Merck** (110

(Ethylbenzol).—Fr. benzene & alum. chloride, by ethyl chloride.— $C_8H_{10}$ , or,  $C_6H_5 \cdot C_2H_5$ .—Colorl. liq.—*Sp. Gr.* 0.867 at  $20^\circ C$ .—*Boil.*  $136^\circ C$ .

*Ethylbenzoylcegonine.*—see **Cocaethylene**

*Ethylidimethylaminopentanolbenzoyl Hydrochloride.*—see **Stovaine**

*Ethylene Acetate, Mono.*—see **Ethylene Monoacetate**

*Ethylene Alcohol.*—see **Ethyleneglycol**

**Ethylene Blue**

(China, or Serge, Blue).—Fr. diethylaniline hydrochl. by treating w. sod. nitrite & hydrogen sulphide & subseq. oxid'n.— $C_{18}H_{12}N_2 \cdot SCl$ .—Dark-green powd.—*Sol.* W.—*Uses:* Dye for cotton; also as stain.

**Ethylene Bromide Merck (Not Ethyl Bromide)** (12

(Dibromethane).— $C_2H_4Br_2$ , or,  $CH_2Br \cdot CH_2Br$ .—Colorl., volat., emulsifiable liq.; chlorof. odor.—*Sp. Gr.* 2.189 at  $15^\circ C$ .—*Misc.*, all prop. A.; insol. W.—*Boil.*  $129-131^\circ C$ .—Cardiac Poison; Antiepilep.; Sedat.; Antineural.—*Uses:* Epilep., delir. trem., nerv. headache, & nerv. insom.—*Dose* 1-2  $\mathfrak{m}$  (0.06-0.12 Ce.) 2-3 t. p. d. in emuls. or caps.—*Caut.* Poisonous!

**Ethylene Chlorhydrin Merck** (100

(Glycol Chlorhydrin; Monochloethyl Alcohol).—Fr. glycol, by heat, w. sulphur monochloride.— $C_2H_5 \cdot ClO$ , or,  $CH_2Cl \cdot CH_2OH$ .—Colorl. liq.—*Sp. Gr.* 1.223 at  $0^\circ C$ .—*Sol.*, all prop. W.—*Boil.*  $128^\circ C$ .

**Ethylene Chloride Merck (Not Ethyl Chloride)** (8

(Dichloethane; Dutch Liquid; Elayl Chloride).— $C_2H_4Cl_2$ , or,  $CH_2Cl \cdot CH_2Cl$ .—Colorl., oily liq.; pleas. odor; sweet taste; irrit. vapor.—*Sp. Gr.* 1.265 at  $15^\circ C$ .—*Sol.* A., E., C.; sl. W.—*Boil.*  $83^\circ C$ .—Anesth.; Rubef.; Antispasm.—*Uses:* Intern., gen'l anesth., inst. of chlorof., espec. operat. on the eye; cramps, diar., &c., as chloroform.—*Extern.*, rheumat.—*Max.* D. 15  $\mathfrak{m}$  (1 Ce.) single; 45  $\mathfrak{m}$  (3 Ce.) p. d.

do. Merck.—Highest Purity (10

**Ethylene Cyanide Merck** (140

(Succinonitrile).—Fr. ethylene bromide, by potass. cyanide w. alc.— $C_2H_2N_2$ , or,  $C_2H_4(CN)_2$ .—Colorl., deliquesce. cryst.—*Sol.* W., C., A.—*Melt.*  $51-54.5^\circ C$ .—*Boil.*  $158-160^\circ C$ .

*Ethylene Guaiacol.*—see **Guaiacol Ethylene**

**Ethylene Iodide Merck (Not Ethyl Iodide)** (75

(Diiodethane).— $C_2H_4I_2$ , or,  $CH_2I \cdot CH_2I$ .—Yellowish cryst.—*Sp. Gr.* 2.07 at  $15^\circ C$ .—*Sol.* A., E.—*Melt.*  $81-82^\circ C$ .

*Ethylene Monacetate.* } —see **Ethyleneglycol**  
*Ethylene-monacetin.* } **Monacetate**

**Ethylene (Monochloro-) Chloride Merck** (25

(Monochloethylene Chloride; Monochlorinated Dutch Liquid; Vinyl Trichloride).—Fr. vinyl chloride, by antimony pentachloride.— $C_2H_3Cl_3$ , or,  $CH_2Cl \cdot CHCl_2$ .—Colorl. liquid; pleas. odor.—*Sol.* A., E.—*Sp. Gr.* 1.458 at  $9^\circ C$ .—*Boil.*  $114^\circ C$ .—*Uses:* Anesth.; said to be superior to chlorof. & ethylene chloride.

*Ethylene Per-(or Tetra-)iodide.*—see **Diiodoform**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Ethylenediamine** (400)  
Fr. ethylene chloride, by ammon. & heat.— $C_2H_8N_2$ , or,  $NH_2CH_2CH_2NH_2$ .—Volat., alkal. liq.; ammon. odor.—Sp. Gr. 0.902 at 15° C.—Sol. W.; insol. E., B.—Boil. 117° C.—Solvent of albumen & fibrin.—Uses: Diphth., w. an antisept.

**Ethylenediamine Hydrate Merck** (300)  
(Diaminethane).— $NH_2CH_2CH_2NH_2 \cdot H_2O$ .—Colorl. liq.—Sp. Gr. 0.965–0.970 at 15° C.—Sol. W.—Uses: Solvent for albumen & fibrin.

**Ethylenediamine Hydrochloride Merck** (85)  
 $C_2H_4(NH_2)_2 \cdot 2HCl$ .—Wh. cryst.—Sol. W.; insol. A.

*Ethylenediamine Mercuric Sulphate*.—see **Sublimine**

*Ethylenediamine-Silver Phosphate Solution*.—see **Argentamine**

*Ethylenediamine-Trikresol*.—see **Kresamine**

*Ethylene-ethylenediamine*.—see **Lysidine**

**Ethyleneglycol Merck** (100)  
(Ethylene Alcohol; Glycol).—Fr. ethylene iodide, by silver acetate & saponif.— $C_2H_6O_2$ , or,  $CH_2OH \cdot CH_2OH$ .—Colorl., sweet, syrupy liq.—Sp. Gr. 1.115 at 15° C.—Sol., sl. E.; all prop., W., A.—Boil. 195° C.

**Ethyleneglycol Monacetate Merck** (180)  
(Ethylene Monacetate; Ethylene-monacetin; Glycol-monacetin).—React.-prod. potass. acetate w. ethylene bromide & alc.— $C_4H_8O_3$ , or,  $OH \cdot CH_2 \cdot CH_2 \cdot OOC \cdot CH_3$ .—Colorl. liq.—Misc. W., A.—Boil. 182° C.—Sp. Gr. 1.108 at 15° C.

*Ethylenenaphthalene*.—see **Acenaphthene**

**Ethylidene Chloride Merck**.—From Paraldehyde (30)  
(Chlorinated Muriatic Ether; Alphadiethylchloroethane; Ethidene Dichloride; Chloridene).— $C_2H_4Cl_2$ , or,  $CH_3 \cdot CHCl_2$ .—Colorl., oily liq.; odor & taste of chloroform.—Sp. Gr. 1.178 at 15° C.—Boil. 58–60° C.—Inhal.—Uses: Anesth., inst. of chloroform, for minor operat.—Extern., applied as analgesic.

*Ethylidenediethyl Ether*.—see **Acetal**

*Ethylidenedimethylether*.—see **Dimethylacetal**

*Ethylideneurethane*.—see **Urethane, Ethyldene-**

*Ethylmorphine Hydrochloride*.—see **Dionin**

*Ethylmustard Oil*.—see **Ethyl Thiocarbimide**

*Ethylnarceine Hydrochloride*.—see **Nareryl**

**Ethylphenylketone Merck** (140)  
Fr. benzoyl chloride, by zinc ethyl.— $C_9H_{10}O$ , or,  $C_6H_5 \cdot CO \cdot C_2H_5$ .—Colorl. liq.—Sp. Gr. 1.009 at 0° C.—Boil. 218° C.

*Ethylpropionyl*.—see **Diethylketone**

*Ethylpyridine, Beta*.—see **Lutidine, Beta-**

*Ethylurethane*.—see **Urethane**

**Eucaïne (Beta-)** (72)  
(Benzoylvinyldiacetonalkamine Hydrochloride; Beta-Eucaïne).— $C_{15}H_{21}O_2N \cdot HCl + H_2O$ .—Colorl. cryst.—Sol., abt. 30 W.; abt. 30 A.; abt. 7 C.; 50 G.—Uses: Local Anesth.; recom. for use on mucous membranes; said to irritate the eye but little, hence used (cautiously) in ophthalmology; also in dentistry.—Appl., in ophthalm., solut. beta-eucaïne & cocaine hydrochl. 3 grains (0.2 Gm.) of each in 5 fl. dr. (20 Cc.) W.; in cystoscopy, a 0.2% solut.; for nose & throat, a 5–10% aq. solut.; in dentistry, 2–3% solut.; also used in Schleich's method of infiltration anesthesia; in hemorrhoids, a 5–10% oint. with 2% menthol.

**Eucaïne (Beta-) Lactate** (72)  
(Benzoylvinyldiacetonalkamine Lactate).— $C_{15}H_{21}NO_2 \cdot CH(OH) \cdot COOH$ .—Wh. powd.—Sol., abt. 5 W.; abt. 9 A.; 5 C.; 20 G.—Melt. 155° C.—Local Anesthetic.—Uses: Rhinology, otology, ophthalmology, in minor surgical operations, etc.—Appl. 2–15% solut.

**Eucalyptene Merck** (60)  
Hydrocarbon from oil eucalyptus.— $C_{10}H_{16}$ .—Clear, colorl. liq.—Sol. A.—Boil. 160–170° C.

*Eucalyptene Hydrochloride*.—see **Eucalyptol**

**Eucalyptol Merck** (40)  
(Eucalyptene Hydrochloride; "Terpene Dihydrochloride").—Fr. oil Eucalyptus globulus, Labill.— $C_{10}H_{16} \cdot 2HCl$ .—Yellowish-wh. cryst.; arom., camphor-like odor; pecul. feeble, but persist., taste.—Sol. A., E., C., oils.—Melt., abt. 50° C.—Internal Antiseptic.—Uses: As substit. for eucalyptus oil & eucalyptol; in pulmon. & gastro-intest. disinf., no toxic action; bronch., typh. fever, choleric form diar., &c. Borne well by stomach.—Doses: 25 grains (1.6 Gm.) daily in wafers or caps.; children 4–12 grains (0.25–0.75 Gm.) daily, w. milk.

**Eucalyptol Merck**.—Highest Purity, Medicinal.  
—Crystallizable 2

(Cineol; Cajepitol).—Organic oxide fr. volat. oil Eucalyptus globulus, Labill.; chief constit. of this, & var. other eucalyptus oils, & of oil Artemisia Cina.— $C_{10}H_{16}O$ .—Colorl. liq.; congeals below 0° C.; camphor-like odor; pung., spicy, cooling taste.—Sp. Gr. 0.930 at 15° C. (0.921–0.923 at 25° C., U. S. P.).—Sol. A.,  $CS_2$ , glacial acetic acid; sl. in W.—Boil. 176–177° C.—Antisept.; Expectant.; Antispasmod.; Antiper.—Uses: Inhal. for diphth., asthma.—Intern., colds, bronch., pncum.—Extern., rhinitis, scar. fever, measles, & chicken pox; also wounds or injuries, & in dentistry in antisept. mouthwashes.—Dose 5–15  $\mathfrak{m}$  (0.3–1 Cc.) 4 or 5 t. p. d. in gelat. caps., sweet. emuls., or sugar.—Inj. 8–15  $\mathfrak{m}$  (0.5–1 Cc.) of mixt. of 2–5 eucalyptol & 10 petrolatum.

do. Merck.—Water-white 2  
Purified oil of Eucalyptus globulus, Labill.—Thin, alm. colorl. liq.; str., camphor. odor; pung taste.—Sol. A.—Sp. Gr. 0.900–0.915 at 15° C.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Styrcamine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Eucalyptol-Iodoform Merck** (12)  
5% solut. of iodoform in eucalyptol—Antisep.

**Eucalyptolene Merck** (60)  
Hydrocarbon fr. oil *Eucalyptus globulus*, Labill.—Thick, yellowish liq.—*Sol.* A.—*Boil.*, above 300° C.

**Eucalyptus**.—*U. S. P.*  
(Gum Wood; Australian Fever Tree; Blue-Gum Tree).—Dried lvs. of *Eucalyptus globulus*, Labillardière. Myrtaceae, collected fr. the older parts of the tree.—*Habit.*: Australia; cultiv. in subtropics, Europe, N. Africa, & southern U. S.—*Etymol.*: Fr. Grk. "eu," well, good, & "kalypptos," covered, *i. e.*, the calyx is furnished in the bud w. a conical lid or cap which later separates entire. "Globulus" has reference to the thick, button-like form of the fruit.—*Constit.*: Volat. oil; tannin; resins (three); eucalyptic acid; bitter principle; ceryllic alcohol.—*Antispasm.*; *Antisep.*; *Febrifuge*; *Stim.*; *Astring.*; *Antipyr.*; *Expector.*; *Tonic*; *Hemostat.*—*Uses*: Hemorrhage, asthma, dyspep., malaria & phthisis.—*Doses*: 15–60 grains (1–4 Gm.).—*Alcoh. extr.* 1–3 grains (0.06–0.2 Gm.).—*Fld. extr.* 5–20 ml (0.3–1.3 Cc.).—*Tinct.* 30–120 ml (2–8 Cc.).

**Eucasin** (4)  
(Casein-Ammonia).—By passing  $\text{NH}_3$  over casein.—Fine powd.—*Sol.*, warm W.—*Nutrient*; *Dietetic*.—Given in bouillon, cocoa, chocolate, soups, etc.; incompat. w. wine & beer.

**Euchinin**.—see **Euquinine**

**Euchresta**  
(Pronodjuvo; Pranadjiwa).—Seed of *Euchresta Horsfieldii*, Bennett. Papilionaceae.—*Habit.*: Java.—*Etymol.*: Grk. "euchrestos," useful, *i. e.*, the plant is used as a food in Java. Plant named for Thos. Horsfield, an American botanist (b. Pennsylvania, 1773—d. England, 1859), who, between 1802–1807, collected Javanese plants.—*Constit.*: Euchrestine (alkaloid), probably identical with cytisine.—*Expector.*; *Aphrod.*—*Uses*: Pectoral & throat affections; antidote to poisons.

**Eucodin** (150)  
(Codeine Methylbromide).— $\text{C}_{18}\text{H}_{21}\text{NO}_3 \cdot (\text{BrCH}_3)$ .—*Colorl. cryst.*—*Sol.*, eas. W.—*Melt.* 261° C.—*Narc.*; *Sed.*—*Uses*: Phthisis, cough, &c.—*Dose* 3–5 grains (0.2–0.3 Gm.) p. d.

**Eudermol**=**Nicotine Salicylate**.—see **Nicotine Salicylate**

**Eudoxin** (42)  
(bismuth salt of Nosophen [Tetraiodophenolphthalein]).—Reddish-brown, odorl., tastel. powd.—*Insol.* W.—*Intest. Antisep.*—*Uses*: Diarrhea, &c. (is decomposed in the intestines into nosophen-sodium & bismuth oxide).—*Doses*: 5–8 grains (0.3–0.5 Gm.) 3–5 t. p. d.; childr., 1½–3 grains (0.1–0.2 Gm.) sev. t. p. d.

**Eugallol** (20)  
(Pyrogallol Monacetate, Knoll).—Dark-yellow, syrupy liq.; marketed only in 66% solut. in acetone.—*Sol.* W.—*Uses*: Succeedaneum for pyrogallol in obstinate chronic peoriasis; very vigorous in action.—*Appl.*, usually pure, as paint once daily, followed in half hour by zinc-oxide powd. or paste.

**Eugenia Chequen**  
(Cheken; Myrtus Chekan).—Lvs. of *Eugenia Chequen*, Molina. Myrtaceae.—*Habit.*: Chili.—*Etymol.*: "Cheken," & "cheeau," are the native names of the drug.—*Constit.*: Chekenon,  $\text{C}_{16}\text{H}_{14}\text{O}_8$ ; cheken bitter; chekenin,  $\text{C}_{12}\text{H}_{10}\text{O}_3$ ; chekenetin,  $\text{C}_{10}\text{H}_7\text{O}_6 + \text{H}_2\text{O}$ ; volat. oil; tannin.—*Expector.*; *Diuret.*; *Anticatarrh.*—*Uses*: Catarrhal affect. of respir. & genito-urinary organs.—*Dose*: Fld. extr. 1–3 fl. dr. (4–12 Cc.).

**Eugenia Jambolanum**.—see **Jambul**

**Eugenoform**  
(Eugenolcarbinol; Eugenolcarbinol-sodium).—Obt. by action of formaldehyde on eugenol.—*Colorl. cryst.*—*Sol.*, eas. W.; diffie. A.; insol. E.—*Melt.* 160° C.—*Intest. Disinfect.*—*Uses*: Cholera, typhoid, & o. infect. diseases.—*Dose* 8–15 grains (0.5–1 Gm.) twice p. d.

**Eugenol Merck** (7)  
(Eugenic Acid; Caryophyllie Acid; Paraoxy-metamethoxyallylbenzene).—Unsaturated, aromat. phenol fr. oil of cloves & o. essential oils.— $\text{C}_{10}\text{H}_{12}\text{O}_2$ , or,  $\text{C}_6\text{H}_5(\text{OH})(\text{OCH}_3) \cdot (\text{CH}_2\text{CH}:\text{CH}_2)$  [1:3:1].—*Colorl.*, or yellowish, oily liq.; becomes brown in air; spiey odor; burn. taste.—*Sp. Gr.* 1.066–1.068 at 25° C.—*Sol.* A., E., C., solut. caustic soda.—*Boil.* 251–253° C. (U. S. P.).—*Antisep.*; *Antituberc.*—*Uses*: Tuberc., &c.—*Techn.*, in manuf. vanillin, & in perfumery inst. of oil cloves.—*Extern.*, oint. w. lanum in ecz. & o. skin dis.; local anesth. in dentistry, &c.—*Dose* 8–30 ml (0.5–2 Cc.).—*Maz.* D. 45 ml (3 Cc.).

**Eugenol Benzoate**.—see **Benzoeugenol**

**Eugenolcarbinol**.  
**Eugenolcarbinol Sodium**. } —see **Eugenoform**

**Euguform** (30)  
(Acetylated Methylenediguaiacol).—Fr. guaiacol by action of formaldehyde & subsequent acetylation.—Fine, grayish-wh., alm. odorl. powd.—*Insol.* W.—*Antisep.*—*Uses*: Lupus, wounds, burns, ulcers & skin diseases.—*Appl.*, dusting powd.

**Euguform Soluble**  
50% solut. euguform in acetone.—*Uses*: As of euguform, in pastes, oints.; also appl. undiluted.

**Eumenol** (5)  
(Fluid Extract Tang-kui [Kau-kui; Man-mu; Shan-ki] Merck).—Fr. root of a Chinese Araliaceae, the genus & species of which are not yet

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



properly determined.—Emmen.; Uterine Sed.—*Uses*: Chiefly amenorrhea & dysmenorrhea, particularly if of nervous origin.—*Dose* 1 fl. dr. (4 Cc.) 3 t. p. d., in sweetened water.

**Eumydrin** (330)  
(Methylatropine Nitrate).— $C_8H_9(HO.CH_2).CH_3.CO.O.C_7H_4N(CH_3)_2NO_3$ .—Wh., cryst., odorl. powd.—*Sol.*, eas. W., A.; v. diffie. in E., C.—*Mydriatic*; Antihidrotic.—*Dose*  $1/60$ – $1/24$  grain (0.001–0.0025 Gm.) as antihidrotic.

**Eunatrol** (18)  
(Sodium Oleate, Zimmer).— $NaC_{18}H_{33}O_2$ .—Wh. powd.—*Sol.* W., A.—*Cholag.*; reported free fr. all injurious effect.—*Uses*: Biliary lithiasis.—*Dose* 4 grains (0.25 Gm.) 2–4 t. p. d., in pill form (the remedy is marketed only as chocolate-coated pills).—In severe cases 6–8 pills p. d. may be given.

**Euonymin Merck.—Pure** (275)  
Mixture of purified glucoside, euonymin, fr. the bark & root of *Euonymus atropurpureus*, Jacq. (Wahoo), with milk-sugar.—Yellowish powd.—*Cholagogue*; Cathart.—*Uses*: Chronic constipation due to hepatic swelling, dropsy, & other hepatic affections.—*Dose*  $1/2$ –3 grains (0.03–0.2 Gm.) in pills or mixture, w. extract belladonna (to prevent any occurrence of colicky pains).

**do. Merck.—Brown** (20)  
“Eclectic resinoid” fr. *Euonymus atropurpureus*, Jacq. (Burning-bush; Wahoo).—Light-brown powd.—*Uses*: Cholagogue & drastic purgative, like resin podophyllum.—*Dose*  $1 1/2$ –6 grains (0.1–0.36 Gm.).

**do. Merck.—Green** (20)  
Resin, with chlorophyll, fr. *Euonymus atropurpureus*, Jacq. (Burning-bush; Wahoo).—Greenish powd.—*Sol.* W.—*Dose*: As cholag. & lax.,  $1 1/2$ –6 grains (0.1–0.36 Gm.), w. extract hyoscyamus.

*Euonymit.*—see **Dulcit**

**Euonymus.—U. S. P.**

(Wahoo; Arrow Wood; Indian Arrow Wood; Bitter Ash; Burning-bush; Strawberry Tree; Spindle Tree).—Dried root-bark of *Euonymus atropurpureus*, Jacquin. Celastraceae.—*Habit.*: U. S., Ontario to Florida east of Mississippi.—*Etymol.*: Fr. Grk. “eu,” well or good, & “onoma,” name, i.e., well known (all parts of the tree have a disagreeable odor). *Atropurpureus*, fr. Lat. “ater,” dark, & “purpureus,” purple-red, i.e., the flowers & fruit are dark-red.—Curved or quilled pieces; extern., ash-gray with blackish ridges or patches, detached in thin scales; inner surface whitish or slightly tawny, smooth; fract. smooth; alm. inodor.; sweetish, then somewh. bitter, acid taste.—*Constit.*: Resinoid euonymin; atropurpurin; asparagin; euonic acid; malic, citric, & tartaric acids; resins; fixed oil; albumin; wax.—*Chola-*

*gogue*; Laxative; Diur.; Tonic; Expector.; Antiper.; Antiparasitic; Cathart.—*Uses*: Chiefly as a laxat., & in dropsy.—*Doses*: 10–60 grains (0.6–4 Gm.) in powd.—*Fld.* extr. 15–60  $\mathfrak{m}$  (1–4 Cc.).—*Hydro-alcoh.* extr. 2–5 grains (0.12–0.3 Gm.).

**Eupatorin (Resinoid)** (15)  
Resin. extr. fr. *Eupatorium perfoliatum*, L. (Boneset, Thoroughwort).—Brown, v. bitter powd.—*Expector.*; Tonic; Diaph.—*Uses*: Colds, bronch., muse. rheum., catarrh, grippe, dyspep., gen'l debil., & tape worm.—*Dose* 1–3 grains (0.06–0.2 Gm.).

**Eupatorin (Glucoside)**  
Fr. *Eupatorium perfoliatum*, L.— $C_{20}H_{22}O_{30}$ .—*Sol.* W.—*Melt.* 102–103° C.

**Eupatorium.—U. S. P.**  
(Boneset; Thoroughwort).—Dried lvs. & flowering tops of *Eupatorium perfoliatum*, L. Composite.—*Habit.*: Canada to Florida & west to Texas & Nebraska.—*Etymol.*: Grk. “eu,” well, & “pater,” father, i.e., born of a noble father; named for Mithridates Eupator, king of Pontus (123–64 B.C.), who discovered one of the species.—*Constit.*: Eupatorin (bitter glucoside); volat. oil; resin; tannin; wax.—Tonic; Diaphor.; Anthelm.; Emetic.—*Uses*: Colds, gen'l debility, catarrh, rheumat., worms, & to induce vomiting.—*Doses*: *Fld.* extr. 20–60  $\mathfrak{m}$  (1.3–4 Cc.).—*Hydro-alcoh.* extr. 4–10 grains (0.25–0.6 Gm.).

**Eupatorium Cannabinum**  
(Hemp Agrimony; Bastard Agrimony; Water Agrimony; Bastard Hemp; Hemp Weed).—Whole plant, *Eupatorium cannabinum*, L. Composite.—*Habit.*: Europe.—*Etymol.*: See preceding. “Cannabinus,” Lat., meaning hemp-like. *Constit.*: Eupatorin.—Febrif. (in dropsy); Vulnerary; Cathart.

**Eupatorium Purpureum**  
(Trumpet Weed; Queen of the Meadow; Gravel Root; Purple Boneset).—Root of *Eupatorium purpureum*, L. Composite.—*Habit.*: U. S.—*Etymol.*: See *Eupatorium*. “Purpureum” refers to the purple flowers of the plant.—*Constit.*: Euparin,  $C_{12}H_{11}O_3$ ; volat. oil; fat; wax; resin.—Diuret.; Diaphor.; Antieatar.—*Uses*: Cystitis, lithiasis, prostatitis, dropsy, leucor., gleet, &c.—*Doses*: Extr. 5–10 grains (0.3–0.6 Gm.).—*Fld.* extr. 30–60  $\mathfrak{m}$  (2–4 Cc.).

**Euphorbia Corollata**  
(Flowering Spurge; Emetic Root; Purging Root; Snake Milk).—Root of *Euphorbia corollata*, L. Euphorbiaceae.—*Habit.*: Canada & eastern U. S.—*Etymol.*: The species was named for Euphorbos, physician to Juba, king of Mauritania (abt. 54 B.C.). “Corollata” refers to the corolla-like involucre of the flower.—Emet.; Diaphor.; Expector.—*Uses*: Instead of ipecac, for emesis, sweating, coughs, colds, &c.—*Dose*: *Fld.* extr. 5–30  $\mathfrak{m}$  (0.3–2 Cc.).

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Styehnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Euphorbia Pilulifera**

(Pill-bearing Spurge; Snake-weed; Cat's-hair; Queensland Asthma - weed; Flowery - headed Spurge).—Whole plant, *Euphorbia pilulifera*, L. *Euphorbiaceae*.—*Habit*: Queensland (Australia); India; widely distrib. in tropical countries.—*Etymol.*: See preceding "Pilulifera," fr. Lat. "pilula," pill, & "fero," to bear, referring to the inflorescence.—*Constit*: Several resins.—*Expect.*: Diuret.; Antiasthmatic.—*Uses*: Asthma, cardiac dyspnea, hay fever, & chron. bronchitis. Lvs. sometimes smoked in pipes in paroxysmal asthma.—*Doses*: 10-60 grains (0.6-4 Gm.) in powd. or infus.—*Fld. extr.* 15-60 M (1-4 Cc.).

**Euphorbium**

(Gum Resin Euphorbium).—Gum-resin fr. *Euphorbia resinifera*, Berg. *Euphorbiaceae*.—*Habit*: Morocco.—*Etymol.*: See *Euphorbia Corollata*.—"Resinifera," fr. Lat. "resina," & "fero," resin-bearing.—*Irreg.*, yellowish, or brownish, slightly friable tears; alm. odorl.; taste first feeble, then pungent & persistently acrid.—*Constit.*: Euphorbin; euphorbon,  $C_{15}H_{26}O$ ; resin; enouthone; malic acid; gum; bitter principle.—*Uses*: Emet.; Cathart.; Errhine; Vesicant; Irritant.

**Euphorin (Not Europhen)**

(20)

(Phenylethyl Carbamate; Phenyl Urethane; Carabanilic Ether).—Fr. ethyl chlorocarbonate, by aniline.— $C_9H_{11}NO_2$ , or,  $C_6H_5(NH)CO_2C_2H_5$ .—Colorl. needles; arom. odor; clove taste.—*Sol.* A., E.; sl. W.—*Melt.* 49-50° C.—Antirheum.; Anod.; Antisep.; Antipyr.—*Uses*: Intern., rheum., tuberculosis, headache, & sciatica. Increases excretion of urea.—*Extern.*, dustingpowd. in vener., & o. skin dis., ulc.—*Dose* 8-15 grains (0.5-1 Gm.) 2-3 t. p. d.—*Caut.* Do not confound this w. *Europhen*.

**Euphrasia**

(Eyebright; Eyewort; Euphrasy).—Whole herb, *Euphrasia officinalis*, L. *Scrophulariaceae*.—*Habit*: Europe.—*Etymol.*: Grk. "euphrasia," delight, referring to the effect the plant is believed to have on the eyes.—*Constit.*: Volat. oil; bitter principle; tannin; resin.—Slightly Tonic; Astring.—*Uses*: Intern., in jaundice.—*Extern.*, in various eye-diseases as lotion, poultice, &c.

**Euphthalmine Hydrochloride**

(700)

(Phenylglycolyl-*n*-methyl- $\beta$ -vinylidiacetonalkamine Hydrochloride).— $C_{17}H_{25}NO_3 \cdot HCl$ .—Mandelic-acid derivative of beta-eucaine.—Wh., cryst. powd.—*Sol.* W., A.—Mydriatic; transitory action.—*Uses*: *Extern.*, in ophthalmoscopic examinations, chron. & acute iritis, operations on cataract, amblyopia, &c., in 2-10% soluts.

**Eupion Reichenbach-Merck**

(60)

Constit. of wood-tar.—Clear, colorl. liq.; agre. odor.—*Boil.*, abt. 47° C.—Antiseptic.

**Euporphin**

(300)

(Apomorphine Methylbromide).— $C_{17}H_{17}NO_3 \cdot CH_3Br$ .—Colorl. need. or scales.—*Sol.*, eas. W., A.—*Melt.* 180° C.—*Uses*: As of apomorphine hydrochloride, but soluts. said to be more stable than those of apomorph. salts.—*Caut.* Do not confound with *Euphorin* or *Europhen*.

**Eupyrin**

(30)

(Vanillmethylecarbonate - parafenetidin).— $C_{12}H_{14}(OC_2H_5)_2N$ :  $CH_3C_6H_3(OC_2H_5)_2O \cdot COOC_2H_5$ .—Pale, greenish-yellow cryst.—*Sol.* A., E., C.; sl. W.—*Melt.* 87-88° C.—Mild, nontoxic antipyr., particularly adapted for debilit. & old persons.—*Dose* 15-30 grains (1-2 Gm.).

**Euquinine**

(28)

(Euclinin; Ethylearbonic Ester of Quinine; Quinine Carbonic Ether Zimmer).— $OC_2H_5 \cdot CO \cdot OC_{20}H_{23}N_2O$ .—Wh., tastel., light, cryst. need.—*Sol.*, eas. in A., E., C.; sl. W.—Succedaneum for quinine & its salts. Reported not to derange the stomach or intestines; to cause no bitter eructations, nausea, or vomiting; causes cinchism more rarely & less intensely than quinine sulph.—*Uses*: Malaria, febrile infect. dis., whoop-cough, neuralgia, quinine idiosyncrasy; prophylactic for malaria. 1 part euquinine = 0.5 part quinine.—*Doses*: 15-30 grains (1-2 Gm.) w. soup, milk, or cacao; as a prophyl., 8 grains (0.5 Gm.) twice daily for adults, & 4 grains (0.25 Gm.) for children.—*Incompat.* Acids & acid salts.

*Note*.—This "perfected" quinine is particularly eligible for children's use, as well as in many other cases, because, while tasteless, it yet develops the full quinine effect with practically no after-effects.

**Euquinine Salicylate**

(35)

$COOH.OH.C_6H_4.C_2H_5O.CO.OC_{20}H_{23}N_2O$ .—Wh., tastel. cryst.—Alm. insol. W.—*Melt.* 195° C.—*Uses*: Exhibits comb. effect of quinine & salicylic acid; partie. adapted for children.

**Euresol**

(20)

(Resorcinol Monoacetate Knoll).—Viscid, yellow mass.—*Sol.*, acetone, solut. of alkalies.—Succedaneum for resorcinol, externally.—*Uses*: Aene, sycoosis, seborrhea, &c.—*Appl.* 5-20% oints.

**Eurobin**

(25)

(Chrysarobin Triacetate Knoll).—Yellowish-red powd.—*Sol.* C., E., acetone; insol. W.—Succedaneum for chrysarobin.—*Uses*: *Extern.*, in psoriasis & o. skin diseases, in 1-20% solut. in acetone, with 5-10% of saligallol.

**Europhen (Not Euphorin)**

(36)

(Iododisobutylorthocresol; Isobutylorthocresol Iodide; Cresol Iodide).—Fr. isobutylorthocresol, by solut. I in KI solut.—27.6% I.— $C_{22}H_{29}O_2I$ , or,  $(C_4H_9)_2C_6H_3(OC_2H_5)_2(C_4H_9)_2C_6H_3I_2(CH_3)_2.OI$ .—Light, dull-yellow, amorph., arom. powd.—*Sol.*, eas. A., E., C., oils; insol. W., G.—*Melt.* 110° C.—Antisep.; Antisiph.; Alter.—*Uses*: *Extern.*,

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



in skin dis., varie. veins & ulc., 5-10% oint. or dust, powd., or pure.—*Intern.*, syphilis.—*Inj.*  $\frac{1}{2}$ –1 $\frac{1}{2}$  grains (0.03–0.1 Gm.) once p. d., in oily solut.—*Caut.* Do not confound w. *Euphorin*.

**Eurythrol Merck** (20)  
Aqueous extract of spleen substance.—*Uses:* Anemia & chlorosis (like o. spleen preparations).

*Euxanthin*.—see **Acid Euxanthic**

**Euxanthone Merck** (400)  
Decomp. product of euxanthic acid ( $C_{19}H_{16}O_{10} + H_2O$ ) obtained fr. Indian Yellow (Puree).— $C_{13}H_8O_4$ .—Pale-yellow need., or scales.—*Sol.* A., E., alkalies.

*Evening Primrose*.—see **Oenothera**

**Extract Alkanet Merck**.—Completely soluble in Alcohol (12)

(Anchusin; Alcannin, or Alkannin).—Color. matter fr. root *Alchusa tinctoria*, L. (Alkanet).—Dark-red, amorph. powd.; sl'y acid.—*Sol.* A., E., C., B., oils.—*Tests:* Solut's give blue precip. w. lead acetate; violet with iron salts.—*Uses:* Coloring for galenicals, fats, and oils; in dental technic for coloring wax; in leather industry; in chem. analysis as indicator, chiefly in form of test paper (alkalies = blue color).

do. Merck.—Soluble in Alcohol & in Petroleum Ether (22)

**Extract Apple Ferrated Merck**.—N. F. (1)  
(Crude Iron Malate).—Fr. ripe sour apples w. iron.—Contains at least 5% Fe.—*Hemat.*—*Uses:* Chlorosis & all affect. needing iron.—*Dose* 5–15 grains (0.3–1 Gm.).

*Extract, Aspidium*.—see **Oleoresin Male Fern**

**Extract Cannabis Merck**.—Alcoholic, soft.—U. S. P. (25)

Fr. fl. tops of pistillate plant, *C. sativa*, L. (Indian Hemp) grown in East Indies.—*Nar.*; *Sed.*; *Analg.*; *Aphrod.*—*Uses:* Headache, sum. diar., anorexia, gastrod., neural., rheum., gout, chorea, hysteria, mental depress., delir. trem., uter. hemorrhage, &c.—*Extern.*, corn cures, &c.—*Dose*  $\frac{1}{4}$ –2 grains (0.015–0.12 Gm.).—*Max. D.* 2 grains (0.12 Gm.) single; 5 grains (0.3 Gm.) p. day.

**Extract Cinchona Merck**.—Aqueous, soft (6)  
Fr. *Cinchona Officinalis* (*C. pallida*).—Bitter Tonic; Antiper.—*Dose* 8–38 grains (0.5–2.5 Gm.).

**Extract Colchicum Root Merck**.—Acetic, soft (6)  
Fr. corm *C. autumnale*, L. (Meadow Saffron).—*Alter.*; *Sed.*; *Diur.*; *Expector.*—*Uses:* Rheum., gout, dropsy, asthma, & ascites fr. hepatic obstruc.—*Dose*  $\frac{1}{2}$ –2 grains (0.03–0.12 Gm.).—*Max. D.* 3 grains (0.2 Gm.) single; 12 grains (0.8 Gm.) p. day.—*Antid.*, emetics, stomach siphon, stimulants, tannic acid.

*Extract Fluid Kau-Kui* [Man-mu, Schan-ki, or Tang-kui].—see **Eumenol**

*Extract Glycyrrhiza*.—see **Extract Licorice**

**Extract Hyoscyamus Leaves Merck**.—Alcoholic, dry, w. powd. licorice root (4)

Fr. fresh lvs. *H. niger*, L. (Henbane); plants of second year's growth.—*Antispasm.*; *Hypn.*; *Sed.*; *Analg.*—*Uses:* *Intern.*, spasm. cough, irrit. blad., insom., hyst., nerv. headache, delir. trem., spinal hyperesthesia & emphysema.—*Extern.*, hemorrhoids, rheum. swell., cancer, ulc., &c.—*Dose* 1–4 grains (0.06–0.25 Gm.).—*Antid.*, emetics, stomach siphon, animal charcoal w. emetics, opium, pilocarpine hypoderm., artif. respir., brandy, ammonia, &c.—*Caut.* Poison!

**Extract Juniper Merck**.—Soft (1)

Conc. juice fresh berries *J. communis*, L. (Juniper).—*Diur.*; *Diaph.*; *Aphrod.*—*Uses:* Dropsy.—*Dose* 5–15 grains (0.3–1 Gm.).

**Extract Leech Merck** (8000)

Aqu. extr. of the heads of *Sanguisuga medicinalis* (Leech) hardened by immersion in alcohol, & then dried & powdered.—30  $\mathfrak{M}$  (2 Cc.) = 1 leech head.—Prevents decomp. & coagul. of blood.—*Recom.* as addition to blood in transfusions, & also intravenously in recurrent thromboses & vascular obstructions.—*Dose* 5–6 $\frac{1}{2}$  fl. oz. (150–200 Cc.).

**Extract Licorice Merck**.—Soft (1)

Prepared fr. commerc. extr., & purified.—*Uses:* Corrigent, pill excipient, &c.

*Extract Male Fern*.—see **Oleoresin Male Fern**

**Extract Malt Merck**.—Dry, powder (2)

Cont. maximum amount diastase, dextrin, dextrose, protein bodies, & salts of barley.—*Eas.* digested Food; *Tonic*; *Dietetic*; *Expector.*—*Uses:* For babies, convalesc. scrof. patients; dyspep., &c.; vehicle for o. reined.; facilitates digestion of starchy foods because of its diastatic power.—*Dose* 1–4 dr. (4–15 Gm.) frequently w. other tonics like cinchona, iron, &c.—*Caut.* Keep dry.

do.—Soft (1)

Brown, honey-like mass; sweet taste.—*Uses:* As preceding; emulsifier.—*Dose* 4 dr. (15 Gm.).

**Extract Monesia Merck**.—Aqueous, dry (8)

Fr. bark of *Chrysophyllum Glycyphllum*.—*Tonic*; *Emmen.*; *Astring.*; *Expector.*; *Alter.*—*Uses:* Dyspep., scrofula, hemorrhage, &c.—*Dose* 1 $\frac{1}{2}$ –5 grains (0.1–0.3 Gm.) sev. t. p. d.—*Appl.*, in 1% solut. in leucorrh. & mouth-washes, & in 1:6 oint.

**Extract Muira Puama Fluid Merck** (20)

Fr. wood & root *Liriosma ovata*, Miers.—*Aphrod.*; *Nerve Stim.*—*Uses:* Sexual debility, senile weakness, &c.—*Dose* 15–30  $\mathfrak{M}$  (1–2 Cc.).

**Extract Opium Merck**.—U. S. P.—Aqueous, dry (20)

Fr. powd. opium.—20% morphine.—*Nar.*; *Hypn.*; *Anod.*; *Stim.*—*Uses:* Pain, diar., dysent., cough, pneum., bronch., & pleur.; stop periton.,

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Styehnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



peristalsis, enteritis, & typhlitis.—*Dose*  $\frac{1}{4}$ –1 grain (0.015–0.06 Gm.).—*Max. D.* 2 grains (0.12 Gm.) single; 5 grains (0.3 Gm.) p. d.—*Antid.*, emetics, stomach syphon, potass. permang., atropine, tannin, friction, electricity. Give strong coffee, oxygen, brandy, &c.—*Caut.* Poison!

**Extract Pine Needles Merck**

(1

fr. fresh needles of *Pinus sylvestris* & *Abies excelsa*.—*Diur.*; *Antisep.*—*Uses*: Dropsy, & genito-urinary dis.—*Dose* 3–6 grains (0.2–0.4 Gm.) sev. t. p. d.—*Extern.* in baths (abt.  $\frac{1}{2}$ –1 lb. [abt. 250–500 Gm.] per bath); also as appl. in prurigo & herpes circinnatus.

**Extract Suprarenal Capsule Merck**

(912

Hemostatic Extract Suprarenal Capsule (gland).—Brown, light particles.—*Sol.*, w. turbidity in equal weight W.—*Vasocostrictor*; *Astring.*; *Styptic.*—*Uses*: *Extern.*, in eye & nose operations (prior to cocaine), conjunctivitis, vascular keratitis, keratoconjunctivitis, episcleritis, hay fever, glaucoma, capillary hemorrhages; combined w. cocaine as anesthetic in all cases in which inflamed tissue impairs the action of cocaine; in surg. operations on eyes as prevent. of hemorrhage & as hemostat. (in 6:20 solut.); *intern.*, in acute cardiovascular paresis occurring in infectious diseases; in chloroform asphyxia, &c.—*Dose*: *Hypoderm.* 1–2 fl. dr. (4–8 Cc.) of 1% solut., 2 or 3 t. daily if required in cardiovascular paresis of infect. diseases.—*Extern.*, in 6–30% soluts. as spray in bleeding & swellings in nose & throat, & particularly in hay fever (in 6–12% aqu. solut.).—*Caut.* Solution should be prepared fresh each time, w. freshly sterilized distilled water.

*Eyebright.*—see **Euphrasia**

*Eye Stone.*—see **Copper, Aluminated**

**F**

*False Bittersweet.*—see **Celastrus**

*False Grape.*—see **Ampelopsis**

*False Hellebore.*—see **Adonis Vernalis**

*False Unicorn.*—see **Helonias**

*False Unicorn Root.*—see **Aletris**

*Farfara.*—see **Tussilago**

**Farrant's Solution**

Solut. acacia in mixt. of W. & G., with  $As_2O_3$ .—*Uses*: Preservative for macroscopic objects.

*Fast Blue, Alcohol Soluble.*—see **Induline Alcohol Soluble**

**Fast Blue B Merck.**—Alcohol-Soluble (10 (Anilidophenylsafranin-Hydrochloride).—Blue-black powd.—*Sol.*, in A. w. violet color.—*Uses*: Dyeing blue, & in lacquers & varnishes.

*Fast Blue, Water-Soluble.*—see **Induline, Water-Soluble**

*Fast Green.*—see **Malachite Green**

*Fast Green J.*—see **Brilliant Green**

*Fast Scarlet.*—see **Benzopurpurine**

*Fast Yellow.*—see **Diphenylamine Orange**

**Fehling's Solution**

(Alkaline Solution Copper Tartrate).—Two solut's. (a) The Copper Solut.: 34.67 Gm. of pure cryst. cupric sulphate in distil. W. to measure 500 Cc. at 25° C.; (b) The Rochelle Salt Solut.: 173 Gm. of potass. & sod. tartrate & 75 Gm. of potass. hydroxide in distil. W. to measure 500 Cc. at 25° C. Just before use, mix equal volumes of the two solut's.—*Uses*: Test for glucose. 10 Cc. of the mixed solut. correspond to 0.05 Gm. anhydr. glucose,  $C_6H_{12}O_6$ .—*Caut.* Keep the solutions separately in small, rubber-stoppered bottles.

**Fennel.**—*U. S. P.*

(Large Fennel; Sweet Fennel).—Dried, nearly ripe fruit of *Feniculum vulgare*, Miller (*F. capillaceum*, Gilibert; *F. officinale*, All.). Umbelliferae.—*Habit.*: Southern Europe; Western Asia; widely cultivated.—*Etymol.*: *Fr. Lat.* "fœnum," hay, *i.e.*, the plant has a hay-like odor. "Capillaceum," *fr. Lat.* "capillaceus," hairy, *i.e.*, the leaflets are very long & narrow, or hair-like.—*Constit.*: Volat. & fixed oils.—*Uses*: Expecto.; Carmin.; Galactag.; Stim.; Stomachic.—*Extern.*, in eye lotions; also used in cookery.—*Dose* 10–60 grains (0.6–4 Gm.).—*Fld. extr.*, 30–60 M (2–4 Cc.).

*Fennel Flower.*—see **Nigella Damascena**

**Fenugreek**

Seed of *Trigonella Fœnum-Græcum*, L. Papilionaceæ.—*Habit.*: Egypt; Asia Minor; France; Germany.—*Etymol.*: "Fœnum Græcum," Greek hay, *i.e.*, in Greece, the plant serves as cattle fodder.—*Constit.*: Volat. & fixed oils; trigonellin; pectin.—*Uses*: Resolvent fomentations.—*Intern.*, in hemorrhoidal affect. Also in veterinary medicine.

*Fern Root.*—see **Polypody**

*Fernambuco.*—see **Pernambuco**

*Fernambuco Paper.*—see **Brazilin Paper**

*Ferrated Tartar.*—see **Iron & Potassium Tartrate, Ferrous**

**Ferratin** (17

Pecul. acid albumin with 7% iron.—Fine, reddish-brown powd.; odorl.; tastel.—*Sol.*, dil. alkalis; insol. W. or dil. acids.—Hematinic. Claimed to be an absorbable organic iron compound.—*Uses*: Chlorosis, anemia, &c.—*Dose* 8–25 grains (0.5–1.6 Gm.) daily, in wafers or powd., w. milk or o. liq. food; children, half as much.—*Incomp.*, acids.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Ferratogen**

(20)

Organic iron comp. obt. by growing yeast in a ferrug. medium.—Grayish-yellow powd.—Insol. W. & acids.—Hemat.; Tonic.—Uses: Chlorosis, anemia.—Dose 5 grains (0.3 Gm.) 3 t. p. d.

**Ferreira da Silva's Reagent.—For alkaloids**

Solut. ammonium selenite (1) in conc. sulphuric acid (20).—Gives characteristic color-reactions w. many alkaloids, &c.

*Ferric Salts.*—see under **Iron**

*Ferric-Chloride-Antipyrine.*—see **Ferropyrine**

*Ferripyrine* = *Ferric-Chloride-Antipyrine.*—see **Ferropyrine**

*Ferroplatinous Cyanide.*—see **Platinum & Iron Cyanide**

**Ferropyrine**

(28)

(Ferric-Chloride-Antipyrine Knoll).—64% antipyrine, 12% iron, 24% chlorine.— $(C_{11}H_{12}N_2O)_3 \cdot Fe_2Cl_6$ .—Red cryst. powd.—Sol., abt. 5 W. at 15° C.; 9 W. at 100° C.; A., B.; insol. E.—Melt. 220–225° C.—Styptic; Antisept.; Astring.—Uses: Intern., Anemia, chlorosis, migraine, headache, neural.—Extern., gonorr., nosebleed, bleeding following tooth extraction, & hemorrh. fr. vagina; also in otitis med., chron. otorrhea, granulations & polypi in the tympanic cavity, &c.—Dose 5–15 grains (0.3–1 Gm.), w. peppermint-oil sugar.—Appl. 1–1.5% solut. for gonorr.; 20% solut. or pure on tampons for hemorrhages.—Incomp., alkalies, bicarbonates, carbonates.

*Ferroso-ferric Oxide.*—see **Iron Oxide, Black**

**Ferrostyptin**

Formaldehyde-iron preparation.—Yellow, cryst. powd.—Sol., eas. W.; insol. cold A., E., acetone.—Melt. 111° C.—Hemost., partic. in dentistry.

*Ferrous Salts.*—see under **Iron**

*Fetid Buckeye.*—see **Æsculus Glabra**

*Fever Bark.*—see **Alstonia**

*Fever Bush.*—see **Lindera**; **Winterberry**

*Feverfew.*—see **Parthenium**

**Fibrin Merck.—Fr. Blood**

(8)

Yellowish-brown, horny masses; form gelat. solut. w. acid. water.—Sol., dil. acids, w. heat.—Uses: Techn.

**do. Merck.—Fr. Plants**

(90)

(Gluten; Gluten-fibrin).—By-product of wheat or corn-starch manuf.—Constit.: Gliadin, gluten-fibrin, mucin, & gluten-casein.—Horny, brownish-yellow masses, or yellowish-gray powd.—Sol., hot A.; alkalies, & dil. acids.—Amyolytic; Nutr.—Uses: Chiefly techn.—See also **Gluten**.

*Fibrin, Muscle.*—see **Myosin**; **Syntonin**

**Fibrin-ferment Merck**

(250)

A protein body (globulin) occ. in blood serum, ehyle, lymph, &c., which caus. coagulation in

liquids containing fibrinogen & in exudates, by causing formation of fibrin.—Tough, elastic flakes.—Sol., in dil. solut. (5–10%) sod. chloride.

**Fibrinogen Merck**

(400)

Albuminoid subst'c. fr. blood serum which, by the action of fibrin-ferment, is converted into fibrin, & thus causes coagulation.—Yellowish-gray powd.—Sol. W., & in solut. sod. chloride.

**Fibroin Merck**

(550)

Nitrogenous prin. (albuminoid subst'c.) fr. silk.— $C_{15}H_{23}N_5O_6$ .

**Fibrolysin**

(50)

(Solut. Thiosinamine & Sodium Salicylate Merck).— $CS(NH_2)NHC_3H_5 + \frac{1}{2}(C_6H_4(OH)COONa) + aq.$ —Marketed only in sealed tubes each cont. 35 M (2.3 Cc.)—equal to 3 grains (0.2 Gm.) thiosinamine of a 15% aqu. solut. of the subst'c., & sterilized at 115° C.—Cicatrical Resolvent.—Uses: As of thiosinamine, in strictures, ankyloses, lupus, chron. glandular tumors, scleroderma, & removal of cicatrical tissue. Particularly well adapted for hypodermic use, as the injections are painless.—Dose: The contents of one tube, every day or every second day.—Caut. Solut. unstable if exposed to light & air.

**Fig.—U. S. P.**

Part. dried fruit of *Ficus Carica*, L. Moraceæ.—Habit.: Western Asia; cultivated in sub-tropics, Italy, France, & California.—Etymol.: Lat. fr. Celtic "figueren"; Teutonic "feige"; Saxon "fic"; English "fig"; Grk. "syke." "*Carica*," fr. Lat. name of dried fig, fr. "*Caria*," in Asia Minor (the habitat).—Constit.: Grape sugar (up to 62%); gum; cradin (a peptonizing ferment).—Nutr.; Expectant.; Purg.; Emol.; Demulc.—Uses: Suppurative poultice for gumboils, buboes, carbuncles, &c.; in domestic economy as table fruit, & in confectionery.

*Figwort.*—see **Scrophularia**

*Filicic Anhydride.*—see **Filicin**

**Filicin Merck**

(250)

(Filicic Anhydride).—Fr. rhizome *Dryopteris Filix-mas*, Schott, or *D. marginalis*, Gray.—Yellowish powd.; odorl.—Sol. C.; partly in E.—Melt. 180° C.—No physiological action.

*Filix-mas.*—see **Aspidium**

**Filmaron**

Amorph. acid obt. fr. extr. male fern.—Light-brownish yellow powd.—Sol., diffic. cold A., methyl. alcoh., benzin; insol. W.; sol. in o. usual solvents.—Melt. 60° C.—Teniacide.—Dose 8–12 grains (0.5–0.75 Gm.) followed by a cathart.

**Filmaron Oil**

(20)

1:10 solut. filmaron in castor oil.—Anthelm.

**Fischer's Reagent.—For cobalt**

Aqu. solut. potassium nitrite acidulated w. acetic acid.—Gives a yellow ppt. of cobaltic potassium nitrite w. cobalt salts.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Fish Berries.*—see **Cocculus Indicus**

*Flag, Sweet.*—see **Calamus**

*Flaxseed*—see **Linseed**

*Flea Mint.*—see **Pulegium**

*Flrabane.*—see **Erigeron**

*Flawort.*—see **Psyllium**

**Flemming's Chromo-Acetic Acid**

1 Gm. glaci. acetic acid, 2 Gm. chromic acid, & 1000 Ce. W.—*Uses*: Fixing animal and vegetable tissues which are to be subsequently stained w. carmine & hematoxylin.

**Flemming's Chromo-Aceto-Osmic Acid**

Weak Solut.: 50 Ce. 1% aq. solut. chromic acid, 20 Ce. 1% acetic acid, 20 Ce. 1% solut. osmic acid, & 110 Ce. W.—Strong Solut.: 30 Ce. 1% aq. solut. chromic acid, 8 Ce. 2% solut. osmic acid, & 2 Ce. glacial acetic acid.—*Uses*: Fixing animal & vegetable preparations, particularly for observing karyokinetic processes.

**Flesch's Chromo-Osmic Acid**

0.1 Gm. osmic acid, 0.25 Gm. chromic acid, & 100 Ce. W.—*Uses*: Fixing specimens.

*Flora Martis.*—see **Iron Chloride, Ferric, Sublimed**

*Flowering Spurge.*—see **Euphorbia Corollata**

*Flowers of Sulphur.*—see **Sulphur, Sublimed**

*Flowers of Tin.*—see **Tin Oxide, Stannic**

*Flowers of Zinc.*—see **Zinc Oxide**

**Fluorene Merck.—Highest Purity (150**

(Alphadiiphenylenemethane).—Fr. coal tar, or synthetically fr. diphenylmethane by zinc-dust w. heat.— $C_{16}H_{10}$ ,  $C_6H_5CH_2$ .—Sm., wh. plates; fluorescent, if not pure.—*Sol.*, hot A., benzene, carbon disulphide; v. sol. E.; sl. sol. cold A.—*Melt.* 113° C.—*Boil.* 302° C.

**do. Merck.—Commercial (20**

Wh. to yellowish cryst.

**Fluorescein Merck (15**

(Resorcinolphthalein; Diresorcinolphthalein; Tetroxyphthalophenonanhydride).—Fr. phthalic anhydride, by heat. w. resorcinol to viscosity.— $C_{20}H_{12}O_5 + H_2O$ , or,  $O(C_6H_3OH)_2 \cdot [1]C_6H_4[2]COO + H_2O$ .—Orange-red, cryst. powd.—*Sol.* E., alkali. solut.; dil. acids, boil. A., &c.—*Decomp.* 290° C.—*Uses*: Diagnos. corneal lesions & impervious strictures of nasal duct. Solut. 10 grains w. 15 grains of sod. bicarb. in 1 oz. W. Also as indicator.—Alkali. solut. red, by transmitt. light; fluoresce. bright green.

**Fluorescein Paper**

(Zellner's Paper).—Paper charged w. a black, substantive, neutral dye, & then impregnated w. a fluorescein solut. and dried.—Exceedingly sensitive reagent for alkalies & ammonia, &

particularly for the latter in spring or well waters, & where other alkalies are also present; also for use in dark or strongly colored liquids.

*Fluorescein-Sodium.*—see **Uranine**

**Fluorescein Merck (16**

(Resorcinolphthalein).—Fr. fluorescein, by heating w. sod. hydroxide & zinc-dust— $C_{20}H_{14}O_5$ , or,  $O(C_6H_3OH)_2 \cdot CHC_6H_4CO_2H$ .—Bright-yellow powd.; readily oxidizes to fluorescein.—*Sol.* E.—*Uses*: Dye; diagnos. corneal lesions as fluorescein (1 drop of a 2% solut.).

*Fluoroform Water.*—see **Fluoroformol**

**Fluoroformol (2**

(Fluorol; Fluoroform Water).—Odorl., colorl., almi. tasted. aq. solut. cont. 2.8% fluoroform,  $CHF_3$ .—*Intern.* Antisept.; Antitubercular; Alter.—*Uses*: Phthisis & tubercular infiltrations, ac. pneum., &c.—*Dose*: Tablespoonful 4–5 t. p. d.

*Fluorol*=**Sodium Fluoride**.—see **Sodium Fluoride**

*Fluorol.*—see **Fluoroformol**

**Flux, Black**

Potass. carb. & nitrate w. carbon.—Black powd.—*Uses*: Assaying.

**Flux, White**

Potass. carb., nitrate, & nitrite; strong oxidizer.—*Uses*: To facilitate the separation of certain fusion products.

*Faniculum.*—see **Fennel**

*Fænum-Græcum.*—see **Fenugreek**

*Formal.*—see **Methylal**

**Formaldehyde Merck.—Highest Purity, Medicinal (1**

(Solution Formaldehyde; Oxymethylene; Formic Aldehyde).—Aq. solut. formaldehyde gas (fr. oxid'n of methyl alc.) conc. to 35–40% (37%, U. S. P.).— $CH_2O$ , or,  $H.CO.H$ .—Clear, colorl. liq.; pung. odor.—*Misc.* W., & A. in all prop.—*Sp.* Gr. 1.075–1.081 at 25° C. (U. S. P.).—Antisept.; Bactericide; Disinf.—*Uses*: Non-irritat., non-tox., non-corros., surg. & general antisept. (in wounds, abscesses, &c.; for clothing, bed-linen, walls, &c.); preserv. of collyria & anatomical or botanical preparations.—*Appl.*, in vapor or solution. In surgery, 0.25–0.5% solut.; general antiseptics, 0.25–2% solut. or in vapor; for hardening anat. specimens, 4–10% solut.; for disinfec. rooms, utensils, books, clothes, furs, linen, sponges, &c., solut. up to 10%; as inhal. in whoop-cough, 1% solut.; in eye lotions, 0.05% solut.—Also used as reagent for phenol; in dental techn.; in manuf. aniline dyes, rubber goods, & ink, & sole leather; electro-technic; glass-making industry; in photography; hardening skin; tanning; &c.—*Incomp.*, ammonia; alkalies; tannin; iron preparations; gelatin; bisulphites; salts of copper, iron, or silver.—*Antid.*, solut. ammon. acetate; ammonia by inhal.; stomach siphon; warm baths.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Formaldehyde Acetate*.—see **Methylene Diacetate**

*Formaldehyde-Gelatin*.—see **Glutol**

*Formaldehyde, Para-*. } —see **Trioxymethylene**  
*Formaldehyde, Polymerized.* }

*Formaldehydeacetamide*.—see **Formicin**

*Formalin*. } = *Solution of Formaldehyde*.—see  
*Formalith.* } **Formaldehyde**

**Formaloin Merck** (40)

Condens. prod. of formaldehyde & aloin.— $\text{CH}_2 : \text{C}_7\text{H}_7\text{O}_7$ .—Yellow, amorph., tastel. powd.—*Sol.*, alkalies; diffic. A.; insol. W.—*Uses*: As of aloin.

*Formamidated Chloral*.—see **Chloralformamide**

**Formamide Merck** (25)

(Methanamide).—Fr. ethyl formate, by  $\text{NH}_3$ .— $\text{CH}_3\text{NO}$ , or,  $\text{HCO.NH}_2$ .—Clear, colorl., oily liq.—*Sp. Gr.* 1.146 at 19° C.—*Sol.* W., A.—*Boil.* 200–212° C., w. part. decomp.

**Forman**

(Chlormethylmenthyl-ester).— $\text{C}_{10}\text{H}_{19}\text{O.CH}_2\text{Cl}$ .—By act. of formaldehyde on menthol in pres. of  $\text{HCl}$  gas.—Colorl., oily liq.; fumes sl. in air; decomp. by W. into its constit.—*Sol.*, oils.—*Uses*: Catarrhal affect. of respir. passages, in form of inhal., or by applie. as forman-cotton.

**Formanilide Merck** (18)

(Phenyl Formamide).—React.-prod. of aniline & formic acid.— $\text{C}_6\text{H}_5\text{ON}$ , or,  $\text{C}_6\text{H}_5\text{.NH.CHO}$ .—Colorl. to yellowish cryst.—*Sol.* W., A.—*Melt.* 46° C.—*Analg.*; *Anesth.*; *Antipyr.*; *Hemost.*—*Uses*: *Intern.*, hemor., fever, local pain.—*Extern.* 20% solut. said to produce local anesth. in one hour.—*Dose* 2–4 grains (0.12–0.25 Gm.) several t. p. d. in wafers.—*Inf.* 15 M (I Ce.) of a 3% solut. in W.—*Appl.* 50% tritur. w. lycopodium; throat affect.; 2–3% solut. in ureth. disch.; 20% solut. as loc. anesth.

*Formie Aldehyde*.—see **Formaldehyde**

**Formicin**

(Formaldehydeacetamide).— $\text{CH}_3\text{CO.NH.CH}_2\text{.OH}$ .—Colorl., v. hygroscop. mass, hence marketed only as syrupy, colorl. liq.—*Sol.*, eas. W., A., C.; insol. E.—*Sp. Gr.* of solut. abt. 1.25.—*Antisept.*; *Disinf.*; *Bactericide*.—*Uses*: *Disinf.* cavities, as wash in cystitis, tubere. ulcers, *disinf.* surg. instruments, as surg. bandages, &c.—*Appl.* 1–2–5% solut.

**Formin** (3)

(Hexamethylenamine Merck; Hexamethylenetetramine).— $(\text{CH}_2)_6\text{N}_4$ .—Wh., cryst. powd.—*Sol.* W.; dif. A.; alm. insol. E.—Sublimable.—*Uratolytic* & *Genito-Urinary Antisept.*, & *Diuret.*—*Uses*: Uric-acid diathesis, cystitis, gout, bacterial

urinary diseases; prevents development of typhoid cystitis, & destroys infectiousness of typhoid urine.—*Dose* 8–25 grains (0.5–1.5 Gm.) w. much water.—Also marketed in the form of tablets each  $7\frac{1}{2}$  grains (0.5 Gm.).

*Note*.—This pure, crystalline article has long since established a position for itself as the most eligible & elegant form of hexamethylenamine on the market.

*Formin Salicylate*.—see **Saliformin**

*Formol*=*Solution of Formaldehyde*.—see **Formaldehyde**

*Formonitrile*.—see **Acid Hydrocyanic**

**Formopyrine**

(Methylenediantipyrine).— $(\text{C}_{11}\text{H}_{11}\text{N}_2\text{O})_2\text{.CH}_2$ .—By heat. antipyrine w. solut. formaldehyde.—Colorl. cryst.—*Sol.* A.; alm. insol. W.—*Melt.* 176–177° C.—Develops the comb. action of its constituents.

**Formyl-phenetidin**

(Paraethoxyformanilide).—Fr. phenetidine hydrochl., by formic acid w. anhydr. sodium formate.— $\text{C}_6\text{H}_5\text{NO}_2$ , or,  $\text{C}_6\text{H}_4(\text{OC}_2\text{H}_5)\text{NH.COH}$ .—Colorl. cryst.; odorl.; tastel.—*Sol.* A., E.; hot W.—*Melt.* 60° C.—*Antisept.*

“*Formyl*” **Tribromide**.—see **Bromoform**

“*Formyl*” **Trichloride**.—see **Chloroform**

“*Formyl*” **Triiodide**.—see **Iodoform**

**Fortoin** (55)

(Methylenedieotin; Cotoinformaldehyde).— $\text{CH}_2(\text{C}_6\text{H}_4\text{O})_2$ .—Yellow cryst. or powd.—*Sol.* C., glacial acetic acid, dil. alkalies, acetone; v. sl. A., E.; insol. W.—*Melt.* 211–213° C.—*Antisept.*; *Astring.*—*Uses*: *Diar.*, *gonor.*, purulent condit. of tonsils, &c.—*Dose* 4 grains (0.25 Gm.) as astring. & antisept. 3 t. p. d.—*Appl.* for painting-on, solut. fortoin 0.5, W. 45, & A. 5 for purul. tonsils, & in *gonor.*, solut. fortoin 1, A. 10, & W. 150.

*Fossil Flour*.—see **Kieselguhr**

*Fox Geranium*.—see **Geranium Robertianum**

*Fowler's Solution*.—see **Solution Potassium Arsenite**

**Fragaria**

(Wood Strawberry).—Whole plant *Fragaria vesca*, L. Rosaceae.—*Habit.*: Europe; natur. in eastern U. S.—*Etymol.*: Lat. “fragare,” to emit fragrance, referring to the odor of fruit.—*Constit.*: Tannin.—*Uses*: Slight *Astring.* (in *dian.*, &c.); surrogate for Chinese tea.—Root also *Diuret.*

*Franciseca*.—see **Manaca**

**Frangula**.—U. S. P.

(Buckthorn; Alder [European] Buckthorn; Black [Alder] Dogwood; Berry Alder; Arrow

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacal; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



Wood; Persian Berries) —Dried bark of *Rhamnus Frangula*, L.; *Rhamnus*, collected at least one year before being used. —*Habit.*: Europe, Russian Asia (except far north); Mediterranean coast of Africa. —*Etymol.*: Grk. "rhamnos," buckthorn, fr. Celtic "ram," a tuft of branches, i.e., collection of thorns. "Frangula" fr. Lat. "frango," to break, i.e., the stems break readily. —Quilled, abt. 1 Mm. thick; extern., grayish-to blackish-brown; inner surface smooth, pale brownish-yellow; colors saliva yellow when masticated; nearly inodor.; taste sweetish & bitter. —*Constit.*: Frangulin (rhamnoxanthin),  $C_{25}H_{35}O_6$ , abt. 0.01%; emodin,  $C_{15}H_{10}O_5$ , abt. 0.1%; frangulic acid,  $C_{15}H_8O_4$ ; isoemodin,  $C_{15}H_8O_4$ ; resin; tannin; coloring matters. —When fresh, Emetic; when old, efficient Purgat., Tonic, & Diuret. —*Uses*: Chronic constip. —*Dose*: 15-120 grains (1-8 Gm.) in powd. —Aqu. extr., 3-10 grains (0.2-0.6 Gm.). —Fld. extr., 30-120 M (2-8 Ce.).

### Frankenia

(*Verba Reumia*). —Herb of *Frankenia grandifolia*, Cham. & Schlecht. Frankeniaceae. —*Habit.*: California. —*Etymol.*: Named for Prof. Johann Frauke, of Upsala (d. 1661). —*Constit.*: Astring. principle; salines. —Astring.; Tonic. —*Uses*: Catarrh. affect., leucor., &c.; & as injection. —*Dose*: Fld. extr., 10-20 M (0.6-1.3 Ce.).

*Frankincense*. —see *Olibanum*

### Fraserin (Eclectic)

(25)

Fr. root *Frasera Walteri*, Mich. (American Colombo). —Brown powd. —Bitter tonic, Lax. —*Uses*: Domestic medic., & by the Eclectics as appetizer & tonic. —*Dose* 1-3 grains (0.06-0.2 Gm.) in powd. or pill.

*Fraude's Reagent*. —see *Acid Perchloric*

*Fraxinella*, White. —see *Dictamnus Albus*

### Fraxinus Americana

(White Ash). —Bark of *Fraxinus americana*, L. Oleaceae. —*Habit.*: Canada & eastern U. S. —*Etymol.*: Fr. Grk. "phraxo," to split or cleave, i.e., the wood is easily split. "Fraxinus" is the Lat. name for the ash tree. —Emmenag. —*Uses*: Amenorrh., & menstrual derangements. —*Dose*: Fld. extr., 20-40 M (1.3-2.6 Ce.).

### Fraxinus Excelsior

(European Ash). —Bark & herb of *Fraxinus excelsior*, L. Oleaceae. —*Habit.*: Europe. —*Etymol.*: See preceding. —*Constit.*: Fraxin (pavine)  $C_{16}H_{18}O_{10}$ ; tannin. —*Uses*: Bark: Febrif.; Anthelmintic.; Tonic. —*Techn.* in tanning, & in dyeing brown, blue, & black. —*Herb*: Purgat.; Antirheumat.; Antipodagr. —*Dose*: *Herb*: As purgat., a decoct. of 4 dr.: 8 fl. oz. (15 Gm.: 250 Ce.) water.

*French Turpentine*. —see *Turpentine, French*

### Frey-Schneider's Acetic-Acid Carmine

Solut. carmine in 45% acetic acid. —*Uses*: For staining & at the same time fixing specimens.

*Friar's Balsam*. —see *Balsam Traumatic*

### Friedländer's Hematoxylin-Alum-Glycerin

Solut. 2 Gm. hematoxylin in 100 Ce. A, mixed w. solut. 2 Gm. alum in 100 Ce. G & 100 Ce. W. —*Uses*: Rapidly staining cell nuclei.

### Friedländer's Picrocarmine

Solut. 1 Gm. carmine, 1 Ce. ammonia, & 50 Ce. water, w. sufficient sat. solut. picric acid added to cause permanent turbidity; then 2 drops carbolic acid added. —*Uses*: As of Ranvier's picrocarmine.

*Fringe Tree*. —see *Chionanthus*

### Fröhde's Reagent. —For alkaloids

Solut. 0.1 Gm. sod. molybdate in 100 Ce. conc.  $H_2SO_4$ . —Gives color reactions w. alkaloids.

### Frommherz's Reagent. —For glucose

Solut. 41.76 Gm. copper sulphate, 20.88 Gm. potass. bitartrate, & 10.44 Gm. potass. hydroxide in 1000 Ce. W. —Reduced by glucose.

*Frostwort*. —see *Helianthemum*

*Fructose*, or *Fruit Sugar*. —see *Levulose*

*Fuchsiacine*. —see *Fuchsine*

### Fuchsine Merck. —Medicinal

(10)

(Rosaniline & Pararosaniline Monohydrochloride). —Fuchsine prepared without arsenic. — $C_{16}H_{11}N_3Cl_4H_2O + C_{20}H_{15}N_3Cl_4H_2O$ . —*Sol.* W. —Antisept.; Antinephr. —*Uses*: Intern., nephr.; said to reduce anasarca & arrest albumin. —*Dose*  $\frac{1}{2}$ -3 grains (0.03-0.2 Gm.) sev. t. p. d. in pills. —*Caut.* Do not confound w. *Fuchsine, Dye*.

do. Merck. —Dye. —Large or small cryst. (7

(Magenta; Roseine; Aniline Red; Rubine; Azaleine; Solferino; Erythrobenzin; Fuchsiacine; Harmaline; Rubianite). —Mixture pararosaniline & rosaniline hydrochloride or acetate. —By oxid'n of mixture of aniline, orthotoluidine, & paratoluidine. —Green cryst.; glist. like cantharides. —*Sol.* W., A. —*Uses*: Techn., dyes silk, wool, & leather bluish-red direct; cotton, after mordant w. tannin & tartar emetic. For staining tubercle bacilli (methylene blue, contrast color).

### Fuchsine Paper

(Rosaniline Paper). —Wh. paper impregnated w. an alc. solut. of fuchsine and dried. —*Uses*: Detection of sulphurous acid (decolorization). —Paper charged w. a fuchsine solut. acidulated w. sulphuric acid (Kroupa's Paper) is an exceed. sensit. test for amm. (red color).

*Fuchsine S.* —see *Ruby S*

### Fucus

(Bladder-wrack; Sea-wrack; Bladder Fucus; Kelp-ware; Black-tang; Cut-weed; Sea-oak). —*Fucus vesiculosus*, L. Fucaeae. —*Habit.*: Atlantic & Pacific Oceans. —*Etymol.*: Fr. Grk. "phykos," fr. "phyein," to grow, the plant is

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



remarkable for its growth in length. "Vesiculosis," fr. Lat. "vesicula," dim. of "vesica," a vesicle, *i.e.*, a little vesicle, referring to the air blisters found in the frond. — *Constit.*: Mucilage; iodides & bromides; mannin; an odorous oil; cellulose. — *Alter.*: Antifat. — *Uses*: Scrofula, obesity, bronchoecle, &c. — *Doses*: 120 grains (8 Gm.) in decoct. — *Fld. extr.*, 10–30 ml (0.6–2 Cc.). — *Hydro-alcoh. extr.*, 1–5 grains (0.06–0.3 Gm.); this extr. contains abt. 0.04% organically combined iodine.

### Fumaria

(Fumitory). — Whole plant *Fumaria officinalis*, L. *Fumariaceae*. — *Habit.*: Europe; adv. in U. S. — *Etymol.*: Lat. "fumus," smoke, because the growing plant presents the appearance of rising smoke. — *Constit.*: Fumarine; fumaric acid. — *Alter.*: Tonic; Diaphor.; Aper. — *Uses*: Skin diseases & scrofulous affect. — *Dose*: Aqu. extr., 10–60 grains (0.6–4 Gm.). — The fld. extr. of *F. parviflora* is given in doses of 10–30 ml (0.6–2 Cc.) in dyspep., hepat. dis., scrof., cancer, & ecz.

*Fungus*. — see **Agaric**; **Bedeguar**; **Elaphomyces**; **Elder**; **Polyporus**

### Furfural Merck

(13)

(Furfuraldehyde; Furoal; Pyromucic Aldehyde; Furfurol; Furfuranecarboxylic Aldehyde; Artificial Oil of Ants). — Fr. carbohydrates, by distilln; us'y distil. bran w. sulphuric acid. —  $C_5H_4O_2$ , or,  $(CH_3)_3OC.CO.H$ . — Colorl., arom. liq.; turns reddish-brown on expos. to light. — *Sp. Gr.* 1.164 at 15° C. — *Sol.* W. — *Uses*: Chem. — *Caut.* Keep dark.

### Furfural Merck. — Reagent

(75)

(Furfurol). —  $C_5H_4O_2$ . — Clear, colorl. liq. when fresh; soon acquires a yellow color on expos. to air & light. — *Sol.* 12 cold W.; v. eas. A., E. — *Sp. Gr.* 1.165–1.166. — *Boil.* 158–160° C. — *Uses*: Detect. sesame oil, urea, alkaloids; used especially in 2% alk. solut. for determining the sesame-oil content of margarin cheese & margarin butter.

*Note.* — For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### Furfuramide Merck

(160)

Fr. furfural by conc.  $NH_4OH$ . —  $(C_5H_4O)_3N_3$ . — Brownish cryst. — *Sol.*, eas. A., E.; insol. W. — *Melt.* 117° C.

*Furfuranecarboxylic Aldehyde*. — see **Furfural**

### Furfurine Merck

(340)

Deriv. of furfuramide. —  $C_{15}H_{12}N_2O_3$ . — Yellowish need. Solut. alk. — *Sol.* A., E.; sl. in W. — *Melt.* 116° C. — *Caut.* Keep dry & fr. air.

### Furfurine Nitrate Merck

(340)

$C_{15}H_{12}N_2O_3.HNO_3$ . — Brownish-yellow cryst.; v. bitter. — *Sol.* A.; sl. W.

*Furfurol*, or *Furoal*. — see **Furfural**

*Fusel Oil*. — see **Alcohol Amylic**

## G

### Gaduol

(6)

(Alcoholic Extract Cod-liver Oil Merck). — Brown, oily liq.; bitter, acrid taste; contains the therapeutic, active prin. of cod-liver oil (iodine, bromine, phosphorus, & alkaloid). — *Alter.*: Nutrient. — *Uses*: Inst. of cod-liver oil. — *Dose* 5–15 ml (0.3–1 Cc.) in wines, elixirs, &c. — Represents abt. 25 times its wt. of prime cod-liver oil.

*Gaiacophosphal*. — see **Guaiaicol Phosphite**

### Galactochloral

(Galactochloralose). — Comp. of chloral & galactose. — Lustr. leaf. — *Sol.* A.; insol. W., E. — *Hypn.* — *Dose* 1½–15 grains (0.1–1 Gm.).

### Galactose Merck. — Pure

(25)

(Lactoglucose). — Fr. carbohydrates, usually lactose, by boil. w. dil. acids. —  $C_6H_{12}O_6$ . — Wh. to yellowish powd.; dextrogyrate. — *Sol.* W.; alm. insol. methyl alc. — *Melt.* 163–164° C.

### Galanga

(Galangal; Colic Root; East-India Root; Chinese Ginger). — Rhizome of *Alpinia officinarum* (Galanga), Jance. *Seitamineae*. — *Habit.*: China. — *Etymol.*: Fr. Malabar "kelengu," Arabic "kutlendjan," Malayan "lanquas," by which names the drug is known. — Cylindrical, branched pieces abt. 2 in. (5 Cm.) long & ¾ in. (15 Mm.) thick; rust-brown color; short, fibrous fract.; yellowish inside; ginger-like odor & taste. — *Constit.*: Volat. oil; acrid resin; kaempferid,  $C_{16}H_{12}O_6$ ; galangin,  $C_{15}H_{10}O_5$ ; alpinin,  $C_{17}H_{12}O_6$ ; galangol. — *Aromat.*: Stomachic. — *Uses*: As of ginger. — *Doses*: 15–20 grains (1–1.3 Gm.). — *Ether. extr.* 1–3 grains (0.06–0.2 Gm.).

### Galbanum

Gum-resin obt. from *Ferula galbaniflua*, Boissier & Buhse. (*Peucedanum galbanifluum*, B.). Umbelliferae. — *Habit.*: Persia. — *Etymol.*: Fr. Arabic "halab," or Hebrew "khelebanah," milk, *i.e.*, the liquid as it flows from the stem is milk-white. — *Constit.*: Volat. oil; gum; resin. — *Stim.*; Antirheumat.; Emmen.; Antispasmod.; Rubefacient & Resolvent (in plasters). — *Dose* 5–20 grains (0.3–1.3 Gm.) in pill, emuls., or tinct.

### Galega

(Goat's Rue). — Whole plant, *Galega officinalis*, L. *Papilionaceae*. — *Habit.*: Mediterranean region to Central Europe. — *Etymol.*: Grk. "gala," milk, & "ago," to bring, referring to the action of the plant. — *Constit.*: Bitter principle; tannin. — *Galactagogue*; Vermif.; Diuret. — *Uses*: Scanty milk secretion; does not reduce quality of milk. — *Doses*: Aqu. extr., 8–30 grains (0.5–2 Gm.). — *Fld. extr.*, 150 ml (10 Cc.) in sweet W. as galact.

### Galeopsis

(Pale-yellow Hemp-nettle). — Whole plant *Galeopsis oehroleuca*, Lam. *Labiatae*. — *Habit.*: Eu-

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaicol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



rope.—*Etymol.*: Grk. "gale," weasel, or cat; & "opos," face, referring to the shape of the corium.—*Constit.*: Bitter principle; resin; tannin.—*Uses*: Pulmonary affections.

**Galipot.**—see **Turpentine, French**

## Galium

(Cleavers; Goose-grass; Catch-weed; Bedstraw; Cleaverwort).—Whole plant, Galium Aparine, L. Rubiaceae.—*Habit.*: Europe; natur. in U. S.—*Etymol.*: Grk. "gala," milk, i.e., it curdles milk, & "apairein," to cling to, i.e., the lvs. cling to the clothes.—*Constit.*: Rubichloric acid; galitannic acid; citric acid.—*Diuret.* (in dropsy); *Refrig.*; *Antiscorbut.*; *Antipyret.*—*Uses*: Skin diseases, & diseases of genito-urin. tract.—*Doses*: 30–60 grains (2–4 Gm.) in powd.—*Fld.* extr. 30–60 ml (2–4 C.).

**Gall (Hog-) Merck.**—Purified, dry (7

Dried, purified bile of Sus Scrofa, L. (the Hog).—Yellowish powd.; contains hyoglycocholic acid,  $C_{27}H_{43}NO_5$ .—*Sol.* W.—*Uses*: Cholagogue, to promote biliary secretion in jaundice, impaired digestion, & other affections due to insufficient biliary secretion.—*Dose*: 5–10 grains (0.3–0.6 Gm.) several t. p. d.

**Gall (Ox-) Merck.**—U. S. P.—Purified (2

Thickened bile of Bos Taurus, L. (the Ox).—Yellowish-green, thick extract; unpleas. odor; disagr., bitter taste; contains chiefly sodium choleate.—*Lax.*; *Digestive*; *Cholag.*—*Uses*: Typhoid fever, jaundice, impaired digestion, deficiency of biliary secretion, &c.—*Dose* 8–25 grains (0.5–1.5 Gm.) sev. t. p. d., in gelatin caps. or pills.

**Galla.**—see **Nutgall**

**Gallal** (20

(Aluminum Gallate).— $Al_4(C_7H_5O_6)_3 + 4H_2O(?)$ .—*Sol.*, amm.—*Astring.*—*Uses*: Where tannin is indicated.

**Gallanilide.**—see **Gallanol**

**Gallanol Merck** (25

(Gallic Acid Anilide; Gallanilide; Gallinol).— $C_{15}H_{11}O_4N + 2H_2O$ , or,  $C_6H_5.NH.CO.C_6H_2(OH)_3 + 2H_2O$ .—Brownish cryst. or powd.—*Sol.* A., E.; boiling W.; sl. cold W.; insol. B., C.—*Melt.* 205° C.—*Antiseptic*; *Dermic.*—*Uses*: *Extern.*, psoria., ecz., & o. skin dis. inst. of chrysophanic acid, or pyrogallol; free fr. unpleas. effects.—*Appl.*, in acute or chronic eczema, in 5–20% oint.; in psoriasis, 20% solut. in chloroform or traumaticin; for moist eczema, 25% dusting powd. w. talc.; for favus, prurigo, & trichophytosis, 20% solut. in alcohol with a little ammonia.

**Gallein Merck** (4

(Pyrogallolphtalein).— $C_{20}H_{10}O_7$ .—Brown, extract-like mass.—*Sol.*, warm W.; A.

**Gallein Merck.**—Reagent (6

(Pyrogallolphtalein).— $C_{20}H_{10}O_7$ .—Pale-brown color. matter.—*Uses*: Sensitive indicator (neutral = yellowish-brown; alkalis = rose-red) in form of alcoh. solut.

**Gallic-acid Anilide.**—see **Gallanol**

**Gallic-acid Methyl Ester.**—see **Gallicin; Methyl Gallate**

**Gallicin Merck** (25

(Methyl Gallate; Gallic-acid Methyl Ester).— $C_6H_2COO(CH_3)(OH)_3$ .—Wh. to grayish-wh. cryst.—*Sol.*, hot W.; A., & E.—*Melt.* 202° C.—*Uses*: *Antisep.* in ocular diseases like conjunctivitis, acute & chron. follicular catarrh, superficial keratitis, & phlyctenular inflam. of the eyes.—*Appl.*, powd. applied directly w. camel's-hair brush to dis'd parts.—See also Methyl Gallate.

**Gallinol.**—see **Gallanol**

**Gallium Merck** (12500

*Etymol.*: Named in honor of France (Gallium) by its discoverer, Lecoq de Boisbaudran, in 1875.—*Metal.*—Ga.—Brit., gray, hard, tough, sl'y mall.; greenish-blue reflect.; silver-white, melted.—*Sp. Gr.* 5.9.—*Melt.* 30.15° C.

**Gallobromol Merck** (25

(Dibromogallic, or Dibromotrioxibenzoic, Acid).—Fr. gallic acid w. bromine.— $C_7H_4Br_2O_5$ , or,  $C_6Br_2(OH)_3COOH$ .—Light-brown powd.—*Sol.* A., E., boiling W.; 10 W. at 10° C.—*Melt.* 140–150° C.—*Sed.*; *Antisep.*; *Astring.*—*Uses*: *Intern.*, inst. of potassium bromide.—*Extern.*, cystitis, gonorr., gleet, eczema, & o. skin dis.—*Dose* 10–30 grains (0.6–2 Gm.).—*Appl.*, in 1–4% solut., poultice, powder, or paste.

**Gallocyanine Violet.**—Fat dye

Chloride of dimethylphenylammonium dioxyphenoxazinecarboxylic acid.— $C_{15}H_{13}N_2O_6Cl$ .—Greenish-gray paste.—*Sol.* A., E., fats, oils, &c.

**Galloformin**

$C_6H_2(OH)_3COOH.(CH_2)_6NH_2$ .—Fr. gallic acid & formin (hexamethylenamine).—Hard, strongly refractive cryst.—*Sol.*, diffic. W., A., E., G.; insol. C., B., olive oil.—Decomposed by heat.—Internal & external antiseptic.

**Gallogen** (16

(Ellagic Acid?).— $C_{14}H_8O_8$ .—Yellowish, odorl., tastel. powd.—*Sol.*, alkalis; insol. acid & neutral media.—*Intest.* *Astring.*—*Uses*: Dysent., cholera infant., diar., &c.—*Doses*: Adults, 10–15 grains (0.6–1 Gm.); children, 5–8 grains (0.3–0.5 Gm.).

**Galls.**—see **Nutgall**

**Gambir.**—U. S. P.

(Pale Catechu; Gambir Catechu; Terra Japonica).—Extract prepared fr. lvs. & twigs of

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Ourouparia (Uncaria) Gambier** (Hunter), Bailon. Rubiaceæ.—*Habit.*: Southern Asia.—*Etymol.*: "Gambir" is the Malayan name of the plant. "Ourouparia" is the native name, fr. Grk. "oura," a tail, referring to the seed being tailed at each end. "Uncaria," fr. Lat. "uncus," a hook (the articulated peduncles harden & elongate to form strong hooks).—Irreg. masses or cubes abt. 1 in. (25 Mm.) square; extern. reddish-brown; intern. pale brown-gray or cinnamon-brown; dull, earthy fracture; friable, inodor., bitterish, astr., & sweetish.—*Sol.*, sl. in cold W.; alm. compl. sol. in boil. W.; A. dissolves abt. 70%.—*Constit.*: Catechin (7.76–19.76%); catechutannic acid (33.3–47.2%); quercetin; gambircatechu red; gum; fixed oil; wax.—*Strong Astr.*; Mild Tonic.—*Uses: Medic.*, in diarrh., relax. uvula, spongy gums, pharyngitis, chron. gonorr., leucorrh., &c.—*Techn.* in tanning; dyeing fabrics brown & black.—*Dose* 5–30 grains (0.3–2 Gm.) in powd., tinct., pill, &c.

### Gamboge.—U. S. P.

(Cambogia; Gummi Guttī).—Gum-resin fr. *Garcinia Hanburii*, Hooker fil. (& G. Morella. Desrousseaux). Guttiferae.—*Habit.*: East Indies.—*Etymol.*: Fr. "Cambodia," a French protectorate in farther India, where indigenous. "Garcinia," fr. Laurent Garcin, a French botanist (d. 1752). "Gutti," fr. Malay "gutah," Javanese "getah," meaning gum or balsam.—*Constit.*: Resin; cambogic acid; gum.—*Uses*: Drast. Cathart.; Dinret.—*Dose*  $\frac{1}{6}$ -S grains (0.01–0.5 Gm.) several t. p. d., in pills.—*Max. D.* 8 grains (0.5 Gm.) single; 15 grains (1 Gm.) daily.—*Antid.*, oil; albumen; opium; inj. camphorated oil.

*Gamma-Methylquinoline*.—see **Lepidine**

### Garantose.—Refined

(Benzosulphinide Heyden; Saccharin).—550 times as sweet as sugar.—*Uses, &c.*: As of benzosulphinide.

do.—"Crystal"

do.—"Soluble"

### Garcinia

(Mangosteen; Mangostan; Mangostine).—Rind of the fruit of *Garcinia Mangostana*, L. Guttiferae.—*Habit.*: East Indies; cultivated in tropical countries; Malayan Islands, &c.—*Etymol.*: Named for Laurent Garcin, French botanist (d. 1752). "Mangostana" is the Malayan name for the tree.—Rind abt.  $\frac{1}{4}$  in. (6 Mm.) thick and deep brown; bitter & astring. taste.—*Constit.*: Mangostine,  $C_{20}H_{22}O_5$ ; tannin; resin.—*Astring.* (in dysentery & leucorr.); Febrif.—*Uses: Extern.*, the aqu. solut. of the extr. is used in var. catarrhal condit.—*Doses*: 60–180 grains (4–12 Gm.).—*Extr.*, 1–2 grains (0.06–0.12 Gm.).—*Fld. extr.*, 15–60  $\mathfrak{m}$  (1–4 Cc.).—*Tinct.*, 15–90  $\mathfrak{m}$  (1–6 Cc.).

*Garget*.—see **Phytolacca**

*Gurlic*.—see **Allium**

### Gaultheria

(Wintergreen; Checkerberry; Deerberry; Boxberry; Teaberry).—Lvs. of *Gaultheria procumbens*, L. Ericaceæ.—*Habit.*: Canada & north-eastern U. S.—*Etymol.*: Named for Dr. Gaulthier, of Quebec. "Procumbens," fr. Lat. "pro," forward, & "cumbere," to lie down, i.e., the stem has a creeping habit.—*Constit.*: Volat. oil (0.5%; methyl salicylate); arbutin; ericolin; urson; resins; tannin.—*Antipyr.*; *Antirheum.*; *Astring.*—*Uses*: Rheum., diar., gout, & febrile condit.—*Dose*: Fld. extr. 30–60  $\mathfrak{m}$  (2–4 Cc.).

### Gedölst's Picrocarmine-Sodium

Aqu. solut. sodium picrocarminate prepared according to a special process.—Said to possess certain advantages over the ammonium compound as a stain for microscopic objects (sections of central nervous system).

*Geissler-Oliver Papers*.—see **Citro-Picric Acid Paper**; **Citro-Potassium Ferrocyanide Paper**; **Citro-Potassium Mercuric Iodide Paper**; **Citro-Sodium Tungstate Paper**; **Indigo-Carmine & Sodium-Carbonate Papers**

### Geissospermine

Alkaloid fr. bark *Geissospermum Vellozii*, Alem.— $C_{19}H_{24}N_2O_2 + H_2O$ .—Sm., wh. prisms.—*Sol.*, dil. acids; sl. in E.—*Melt.* 160° C.—*Antipyr.*; Tonic.—*Uses*: Chiefly in intermit. fever.—*Dose* 8–30 grains (0.5–2 Gm.) abt. 4 hrs. before expected paroxysm.

*Geissospermum Vellozii*.—see **Pao-Pereira**

*Geita*.—see **Monsonia**

### Gelanthum

(1)

Acc. to Unna an ideal water-soluble vehicle for the application of dermics. Said to form a smooth, homogeneous covering without tendency to stickiness; not to stain the skin or linen; to readily take up 50% ichthyol, 40% salicylic acid, resorcinol, or pyrogallol; 5% carbolic acid, & 1% mercuric chloride; to keep insoluble drugs well suspended.—*N. B.*: This preparation is prone to spoil.

### Gelatin

V. pure glue.—Amorph., brittle, transp., tastel.—*Sol. W.*—*Uses*: In 1–2% sterilized solut. subcut. as efficient hemostat. (see also Gelatin, Sterilized).—*Intern.*, also in 2–20% aqu. solut. as efficient hemostat. in gastric & intest. hemorrhages, uterine hemorrhage, intrauterine inject., & tampons w. gelatin gauze; in metrorrhagia, brush appl. w. 5–25% solut.; also as wash in melena neonatorum. The gelat. solut. must be sterilized before use, & warmed up to 37–38° C.—*Techn.*, in bacteriology for preparing cultures.—*Incomp.*, tannin & formaldehyde.

do. **Merck**.—Sterilized solution, for injection

(20

10% solut. gelat. intended specially for subcut. inject., & prepared fr. fresh calves' feet under special, aseptic precautions; it is very carefully

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



sterilized so that danger of a tetanus infection is absolutely excluded.—*Lilicient Hemostatic.*  
*Dose.* In epistaxis, 20-30 Cc. solut. cont. 2% gelatin & warmed to blood heat, injected into the nasal cavity; in aneurism, for checking choleraic hemorrhage, in hemorrhagic variola, &c., 200 Cc. 2% solut. inject subcut. in lumbar region.—*Extern.* as wash to check bleeding fr. lacer. bites, & fr. surface wounds of hemophilic subjects.

**Gelatin Dibromotannate.**—see **Bromocoll**

**Gelulose-Silver.**—see **Albargin**

**Gelsemin Merck.**—Resinoid (50

Fr. rhizome & root *Gelsemium sempervirens*, Persoon.—Yellowish-brown powd.—*Sol.* A.—*Antipyr.*; *Analg.*; *Anod.*; *Cardiac*. *Depress.*; *Hypn.*—*Uses:* Fevers, dysent., rheum., dysmenor., delir. trem., neural., epilepsy, toothache, chorea, &c.—*Dose*  $\frac{1}{8}$  2 grains (0.008-0.12 Gm.) several t. p. d.

**Gelseminine Merck.**—Alkaloid (1425

Fr. rhizome & root *Gelsemium sempervirens*, Persoon.— $C_{22}H_{26}N_2O_5$ .—*Sm.*, wh., micros. cryst.—*Sol.* A., E., C.; insol. W.—*Melt.* 158-160° C., after previous softening.—*Antineural.*; *Antispas.*—*Uses:* Neural., rheum., dysmenor., &c.; also antid. to strychnine.—*Dose*  $\frac{1}{120}$   $\frac{1}{30}$  grain (0.0005-0.002 Gm.).—*Max. D.*  $\frac{1}{30}$  grain (0.002 Gm.) single;  $\frac{1}{6}$  grain (0.01 Gm.) p. day.—*Antid.*, emetics early, atropine, strophanthin, artif'l respir., extern. stimulation.—*Caut.* Poison!

**Gelseminine Hydrobromide Merck** (1425

Wh. cryst.—*Sol.* W., A.—*Uses & Doses:* As of gelseminine.

**Gelseminine Hydrochloride Merck.**—Cryst. 1425

Wh., cryst. powd.—*Sol.* W.; sl. in A.—*Uses:* As of gelseminine.

**do. Merck.**—Amorph. (1425

Salt of a second alkaloid found in *Gelsemium*.—Yellowish, v. hygrosc. powd.—*Sol.* W., A.—*Clinical data* lacking.

**Gelseminine Nitrate Merck** (1425

Wh., cryst. powd.—*Sol.* W., A.

**Gelseminine Salicylate Merck** (1425

Wh., cryst. powd.—*Sol.* W., A.

**Gelseminine Sulphate Merck** (1425

Wh. powd.—*Sol.* W., A.

**Gelseminine Tartrate Merck** (1425

Wh., cryst. powd.—*Sol.* W., A.—*Uses, Doses, Antidotes, &c.*: As of gelseminine.

**Gelsemium.**—U. S. P.

(Yellow Jasmine; Wild Woodbine; Carolina Jasmine or Jessamine).—Dried rhizome & roots of *Gelsemium sempervirens* (L.), Aiton fil. Loganiaceæ.—*Habit.*: Southern U. S.—*Etymol.*: "Gelsemium" is the ancient name for jasmine,

derived fr. the Arabic "jasmin." "Semper-virens," fr. Lat. "semper," always, & "virens," to be green, i. e., referring to the evergreen lvs.—*Constit.*: Gelsemin; gelseminine; gelseminic (gelseminic) acid; volat. oil; resin.—*Antineural.*; *Antiperiod.*; *Sedative*; *Mydriatic*; *Antispas.*—*Uses:* Neural., coryza, dysuria, hyster., dysmenor., whoop-cough, asthma, malar. & yellow fevers, pneum., pleurisy, dysent., toothache, delir. tremens, rheumat. &c.—*Doses:* 2-10 grains (0.12-0.6 Gm.).—*Alcoh. extr.*,  $\frac{1}{4}$ - $\frac{1}{2}$  grain (0.015-0.03 Gm.).—*Fld. extr.*, 2-5  $\mathfrak{m}$  (0.12-0.3 Cc.).—*Tinct.*, 2-15  $\mathfrak{m}$  (0.12-1 Cc.).—*Antid.*, cardiac & diffusible stimul'ts; tannin; evacuants; atropine; external heat & friction; morphine; mustard bath; artif. respir.; electricity; emetics; stomach siphon.

**Genista**

(Broom; Dyer's Broom; Dye-weed; Green-weed).—Whole plant *Genista tinctoria*, L. Papilionaceæ.—*Habit.*: Europe; northern Asia; natur. in U. S.—*Etymol.*: Lat. "genu," knee, because of the pliability of the stem.—*Constit.*: Tannin.—*Uses:* In hemorrhoids; affections of spleen & liver; in dropsy, as diuret. in cardiac affect., & Bright's disease.—*Dose:* *Fld. extr.*, 2-5 fl. dr. (8-20 Cc.) per day in divided doses; extern. as appl. (by brush) in erysipelas.

**Gentian.**—U. S. P.

(Gentiana; Yellow [or Pale] Gentian; Bitter Root).—Dried rhizome & roots of *Gentiana lutea*, L. Gentianaceæ.—*Habit.*: Central & southern Europe.—*Etymol.*: Grk. "gentiane," after Gentius, king of Illyria, who first discovered its virtues, & employed it. Lat. "luteus," golden-yellow, referring to the color of the flowers.—*Constit.*: Gentisin (gentianin; gentisic acid),  $C_{34}H_{40}O_5$ ; gentiopierin,  $C_{30}H_{36}O_{12}$ ; gentianose; pectin.—*Bitter Tonic*; *Laxat.*; *Antiperiod.*—*Uses:* Dyspep., anorex., amenor., atonic gout, &c.—*Techn.*, in manuf. of liqueurs, & as pill excip.—*Doses:* 5-30 grains (0.3-2 Gm.).—*Aqu. extr.*, 2-6 grains (0.12-0.36 Gm.).—*Fld. extr.*, 10-30  $\mathfrak{m}$  (0.6-2 Cc.).—*Comp. tinct.*, 1-2 fl. dr. (4-8 Cc.).—*Tinct.*, 1-2 fl. dr. (4-8 Cc.).

**Gentian Blue 6 B Merck** (15

Hydrochloride, sulphate, or acetate of triphenylrosaniline & triphenylpararosaniline.—Grayish-green to bluish-violet powd.—*Sol.* A.; insol. W.—*Uses:* Adapted for coloring paper & spirit lacquers, &c.

**Gentian Violet B Merck** (7

Commercial grade of Methyl Violet (which see).—*Uses:* Staining bacteria (Weigert's, Simon's, &c. solut.).

**Gentian Violet B B B**

(Paris Violet; Direct Violet; Dahlia).—Hydrochlor. of penta- & hexa-methylpararosaniline.—By oxid'n dimethylaniline w. cupric chloride.— $C_{24}H_{28}N_3Cl$ , or,  $(C_6H_4.N.[CH_3]_2)_2C.C_6H_4.N.CH_3.HCl$ .—Green powd.; metal. luster.—*Sol.* A.,

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



amyl. A., & W.—*Uses*: Dye silk & wool direct, & cotton mord. w. tannin & tartar emetic. Also in Weigert's & Simon's stains for bacteria.

**Gentian Violet B R Merck** (7)  
Commercial grade of Gentian Blue (which see).

*Gentian, White.*—see **Laserpitium**

### Gentiana Cruciata

Whole plant, *Gentiana cruciata*. Gentianaceæ.—*Habit.*: Mountainous woods of central Europe.—*Etymol.*: Fr. *Gentius*, king of Illyria (500 B. C.), who recommended the plant as a remedy for the plague.—*Constit.*: Bitter principle. Bitter tonic; Aper.

**Gentianin Merck** (12)  
(Crude Gentianic Acid; Crude Gentisin).—Crude, bitter prin. fr. root *Gentiana lutea*, L.—Dark, brownish extr.—*Sol.* A.—*Tonic.*—*Uses*: Dyspepsia, hysteria, debil., &c.—*Dose* 5-15 grains (0.3-1 Gm.) several t. p. d.

*Gentisin, Crude.*—see **Gentianin**

**Gentisin Merck** (3000)  
(Gentianic Acid; Gentianin).—Coloring matter root *Gentiana lutea*, L.— $C_{13}H_{15}O_2(OH)_2OCH_3$ .—Pale-yellow powd.—*Sol.* A.; sl. E. & W.; alkalies.—*Subl.*, partly at 300-340° C.—*Melt.* 267° C.

*Geoform.*—see **Methylenediguaiacol**

*Georgina Paper.*—see **Dahlia Paper**

*Geosote.*—see **Guaiaicol Valerate**

**Geraniin (Eclectic)** (15)  
Fr. rhizome *Geranium maculatum*, L.—Dark-brown powd.—*Sol.* A.—*Astring.*—*Uses*: Diar., dysent., & cholera inf.—*Dose* 1-3 grains (0.06-0.2 Gm.).

### Geranium.—U. S. P.

(Cranesbill; Storksbill; Alum Root).—Dried rhizome of *Geranium maculatum*, L. Geraniaceæ.—*Habit.*: Canada & eastern U. S., south to Georgia.—*Etymol.*: Grk. "geranos," crane, referring to the long beak of the seed capsule, which resembles a crane's bill. Lat. "macula," spot, i. e., the lvs. acquire whitish spots with age.—*Constit.*: Tannin; gallic acid; red coloring matter; sugar; pectin.—*Astring.*; *Stypt.*—*Uses*: Particularly useful in renal & intestinal hemorrhages; cholera infantum, diar., prolapsus, &c.—*Extern.*, in epistax., ulcers, hemorrhages, cracked nipples, gleet, leucor., & relaxed muc. membr.—*Tech.*, in tanning.—*Doses*: 15-60 grains (1-4 Gm.).—*Extr.*, 5-10 grains (0.3-0.6 Gm.).—*Fld. extr.*, 15-30 ℥ (1-2 Ce.).—*Tinct.*, 30-60 ℥ (2-4 Ce.).

*Geranium, Blood.*—see **Sanguinaria Herb**

### Geranium Robertianum

(Herb Robert; Fox Geranium; Mountain Geranium).—Whole plant *Geranium Robertianum*, L. Geraniaceæ.—*Habit.*: Europe.—

*Etymol.*: Grk. "geranos," crane, referring to the long beak of the seed capsule, which resembles a crane's bill; "Robertianum," fr. the French botanist, Robert (1701).—*Astring.*; *Styptic.*—*Uses*: Gargle in angina (in 15-30 : 500 decoct.).

*Germander.*—see **Chamædrys; Teucrium**

*Germander, Water.*—see **Scordium**

### Germanium Merck.—Fused

*Etymol.*: Name given the element discovered by Clem. Winkler in 1886 in argyrodite.—Metal.—Ge.—Grayish-white, lustr., v. brittle.—Sp. Gr. 5.469 at 20° C.—*Melt.*, abt. 900° C.

do. **Merck.**—Powder

Dark-gray powder.

**Germanium Oxide Merck** (250000)  
(Germanium Dioxide; Germanic Acid).— $GeO_2$ .—Wh. powd.—*Sol.*, hot W. & alkalies; sl. cold W. & acids.

### Germanium & Potassium Fluoride Merck

$K_2GeF_6$ .—Wh. cryst.—*Sol.*, quite eas. in boil. W.; sl. cold W.; insol. A.

### Geum

(Avens; European Avens; Radix Caryophyllata).—Root of *Geum urbanum*, L. Rosaceæ.—*Habit.*: Europe.—*Etymol.*: Grk. "ge," earth, referring to the habit of the root to run deeply into the earth. "Caryophyllata" refers to the faint, clove-like odor which the roots give off on being rubbed.—*Constit.*: Volat. oil; bitter subst'ce; resin; tannin.—*Astring.*; *Tonic*; *Stoma.*—*Dose* 20-60 grains (1.3-4 Gm.).

### Gillenia

(American Ipecac; Indian Physic).—Root of *Gillenia trifoliata*, Moench. Rosaceæ.—*Habit.*: Canada to Florida.—*Constit.*: Gillenin; gum-resin; wax; red coloring matter; volat. coloring matter.—*Tonic*; *Expector.*; *Emetic.*—*Uses*: Coughs & colds, & as emetic.—*Doses*: Fld. extr., 3-8 ℥ (0.2-0.5 Ce.) expector.; 20-30 ℥ (1.3-2 Ce.) mild emetic.

### Gillenin (Eclectic)

Fr. root *Gillenia trifoliata*, Moench (Indian Physic).—Brown powd.—*Sol.* A.—*Emetic*; *Cath.*; *Tonic*; *Expector.*—*Uses*: Inst. of ipecac.—*Dose* 4-6 grains (0.25-0.36 Gm.).

### Ginger.—U. S. P.

Dried rhizome of *Zingiber officinale*, Roseoe. Zingiberaceæ.—*Habit.*: Southern Asia; West Indies; Africa; cult. in all tropical countries.—*Etymol.*: Grk. "zingiberis," Arabic "zindschebil," root of zindschi (India), known already to the ancients. Derived fr. Sanserit "gringavera," fr. "gringa," horn, & "vera," body, i. e., the roots are horn-shaped.—*Constit.*: Volat. oil; acrid resin; gingerol.—*Rubefac.*; *Stomachic*; *Digestive* (in flatulence & digestive troubles); *Carminat.*; *Stim*; *Sternut*; *Sialag*;

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaicol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Corrigent.**—*Uss. Extern.*, anodyne in colic, rheumat., neuralgia, toothache, &c.—*Intern.*, in neurop., ginger beer, in cookery, &c.—*Dose*., 5-20 grains (0.3-1.3 Gm.).—*Fld. extr.*, 5-20 ml (0.3-1.3 Cc.).—*Tinct.*, 15-60 ml (1-4 Cc.).

**Ginger; Canada, or Indian.**—see **Asarum Canadense**

**Ginseng**  
(Panax; American Ginseng).—Root of *Panax quinquefolium*, L. *Apiaceae*.—*Habit.*: North America.—*Etymol.*: Chinese "gin-seng," man-root, i.e., the root has a shape resembling that of a man.—*Constit.*: Volat. oil; resin; panacin; panapinon; sugar; mucilage.—*Stim.*; *Tonic*; *Nervine*; *Aphrodisiac*.—*Uses*: By the Chinese as a panacea for every variety of disease.—*Dose* 30-120 grains (2-8 Gm.).

**Gladiolus**  
(Sword Lily; Round Mandrake; Sword Grass; Corn Flag).—Root of *Gladiolus communis*, L. *Iridaceae*.—*Habit.*: Europe.—*Etymol.*: "Gladiolus," the dim. of Lat. "gladius," a sword, i.e., a little sword, referring to the sword-shaped lvs.—*Uses*: *Vulnerary*; *Antiscrof.*

**Glandes Quercus.**—see **Acorn**

**Glass, Soluble.**—see **Potassium Silicate; Sodium Silicate**

**Glass-wool Merck** (20  
(Slag Wool).—Wh., silky threads fr. readily fusible glass.—*Uses*: For filter, or strain, strong acids & alkalis.

**Glass-wool Merck.**—**Reagent**

Specially prepared for analytical work.

**Glauber's Salt.**—see **Sodium Sulphate**

**Glaucium**  
(Horn Poppy; Horned Yellow Poppy).—Herb of *Glaucium luteum*, Scopoli.—*Habit.*: Europe; natur. in U. S.—*Etymol.*: Fr. Grk. "glaukos," sea-green, referring to the color of the foliage. Lat. "luteus," yellow, i.e., the flowers are yellow.—*Constit.*: Sanguinarine; glaucine.—*Uses*: *Antidiab.*—*Dose*: *Fld. extr.* 60 ml (4 Cc.) morn. & eve.

**Glechoma**  
(Ground Ivy; Field Balm; Cat's-foot).—Whole plant *Glechoma hederacea*, L. *Labiatae*.—*Habit.*: Europe; widely natur. in U. S.—*Etymol.*: Fr. "glechon," the Grk. name for pennyroyal; & Grk. "hedra," seat, referring to the strength with which it adheres to walls.—*Constit.*: Bitter principle; resin; tannin; volat. oil.—*Febrief.*—*Uses*: *Extern.*, as vulnerary.

**Globularetin Merck** (4500  
 $C_{24}H_{40}O$ .—Cleavage product of globularin.—Brownish-yellow powd.—*Diuret.* & *Purg.*

**Globularin Merck** (3000  
 $C_{15}H_{20}O_6$ .—Glucoside fr. lvs. *Globularia alypum*, L., & *G. vulgaris*, L.—Brownish-yellow powd.—Acts like caffeine on the heart & nervous

system.  $\frac{1}{8}$  grain (0.012 Gm.) globularin, w  $\frac{3}{10}$  grain (0.018 Gm.) globularetin, in alc. solution, is given twice daily in rheumat., gout, typhoid, & uremia of Bright's disease. The French "Teinture praseode" consists of globularin 0.5 Gm., globularetin 0.7 Gm., 60% alcohol 20 Gm.; *dose*, 8-20 drops twice daily.

**Globulin Merck** (350  
(Crystallin).—Albumin fr. egg-yolks; (also fr. crystalline lens of eye).—Yellowish powd.—*Sol.* W., alkali.

**Globulin (Para-) Merck** (500  
(Serum-globulin; Serum-casein).—Albuminoid fr. blood serum or lymph.—Wh., or yellowish-white powd.—*Sol.*, v. dil. alkali; v. dil. NaCl solut.

**Globulin, Serum.**—see **Globulin (Para-)**

**Gluclinum.**—see **Beryllium**

**Glucose.**—see **Dextrose**

**Glue, Animal.**—see **Glutin (Animal)**

**Gluside.** }—see **Benzosulphinide; Garantose;**  
**Glusidum.** } **Saccharin**

**Gluten.**—see **Fibrin, from Plants**

**Gluten, Alcohol-insoluble.**—see **Albumin, from Plants**

**Glutin (Animal) Merck.**—**Technical** (5  
(Animal Glue).—Fr. decalcified bones of vertebrate animals.—Yellowish scales.—*Sol.*, boil. W.; insol. A. & E.—*Uses*: As adhesive instead of ordinary glue.

**Glutin-Peptide-Sublimate Hydrochloride.**—**Solution** (10  
(Mercury Peptonate, Paul).—Prepared according to German patents Nos. 54587 & 54747.—Yellow liq.; contains 1%  $HgCl_2$ ; consists of a double-salt of mercuric chloride & glutin-peptide hydrochloride.—*Sol.* W.—*Uses*: Adapted for hypoderm. inject. in syphilis.—*Dose*: 1 Cc. of solut. ( $\approx 0.01$  Gm.  $HgCl_2$ ) by inject.; 20 inject. are, on an average, required for successful treatment.

**Glutiform.**—see **Glutol**

**Glutol Schleich** (13  
(Glutiform; Formaldehyde-Gelatin).—Compound of formaldehyde & gelatin.—Wh. to yellowish powd.—*Uses*: In surgical treatment of open wounds. The powd. is best simply applied to the sewn or torn wounds.

**Glycerides.**—see **Glycerites**

**Glycerin Merck.**—**Highest Purity**—**Sp. Gr.** 1.25=30° Bé. (1  
(Glycerine; Glycerol; Glycyl, or Propenyl, Alcohol).—Not less than 95% abs. glycerin.— $C_3H_5O_3$ , or  $C_3H_5(OH)_3$ .—Clear, colorl., syrupy liq.; sweet & warm taste.—*Sol.* W., A.—*Boil.*, abt. 165° C.—*Uses*: *Intern.*, inst. of sugar or syrup in mixt., or for diabetics.—*Extern.*, emollient; & as laxat., in form of supposit., ea.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



containing 30 grains (2 Gm.), in obstin. constip.—*Techn.*, solvent for substances, but slightly sol. in water; also manuf. of glycerolates, & cosmetic prep's, &c.—*Dose* 1-4 dr. (4-15 Cc.).

*Note.*—This glycerin is especially suitable for pharmaceutical & medicinal uses, as it is free from foreign fats, arsenic, & acids.

**Glycerin.**—Sp. Gr. 1.265 = 30 $\frac{1}{4}$ ° Bé., crude (1 96% pure glycerin.—*Uses:* *Techn.*, nitro-glycerin, wine & beer manuf., lubricants, preserving, keeping substances pliable, manuf. elastic glues, lead-oxide cement, & in gas meters.

**Glycerin Merck.**—Reagent.—Sp. Gr. 1.250 (1 C<sub>3</sub>H<sub>8</sub>O<sub>3</sub>.—Clear, colorl., odorl., neutr. liq.—Sp. Gr. not less than 1.250.—At least 95% absolute glycerin.—*Misc.*, all prop. W. & A.—*Tests:* As under Glycerin, Reagent, Sp. Gr. 1.23, & the following in addition: (Ca) 5 Cc. + 25 Cc. H<sub>2</sub>O + solut. (NH<sub>4</sub>)<sub>2</sub>C<sub>2</sub>O<sub>4</sub>—no reaction.—(Sugars) 5 Cc. + 50 Cc. H<sub>2</sub>O + few drops HCl; heat 30 min. on W.-bath. To 10 Cc. of hot liquid add NaOH to alkalinity & 1 Cc. Fehling's solut.—no yellowish-red turb. or ppt. within 6 hrs.—(Readily Carbonizable Matter) 5 Cc. + 5 Cc. conc. H<sub>2</sub>SO<sub>4</sub>—not more than yellow color on standing 1 hr.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.**—Reagent.—Twice distilled.—Sp. Gr. 1.23 (1

C<sub>3</sub>H<sub>8</sub>O<sub>3</sub>.—Clear, colorl., odorl. liq.—*Misc.*, all prop. W., A.; insol. E., C.—Sp. Gr. 1.225-1.235.—*Tests:* (A) 1 Cc. + 3 Cc. solut. SnCl<sub>2</sub>—no dark color within 1 hr.—(Free Acids & Bases) 10 Cc. + 50 Cc. H<sub>2</sub>O—no action on red or blue litmus.—(Inorgan. Impur.) heat 5 Cc. in open dish to boil.; ignite gases evol.—glyc. should compl. burn up, & leave only dark deposit which should disappear on strong heat.—(Impur. Reducing Ammon. AgNO<sub>3</sub>) heat 1 Cc. + 1 Cc. NH<sub>4</sub>OH (sp. gr. 0.96) on W.-bath to 60° C.; add 3 drops solut. AgNO<sub>3</sub>—no color or brownish-black ppt. within 5 min.—(NH<sub>4</sub> Comp.; Organ. Impur.) heat 1 Cc. + 1 Cc. solut. NaOH—no NH<sub>3</sub> vapors (detect. w. moist. litmus paper), & no odor like that afford. by glue.—(Fatty Acids) gently warm 1 Cc. + 1 Cc. dil. H<sub>2</sub>SO<sub>4</sub>—no unpleas., rancid odor.—(HCl; Cl) 5 Cc. + 25 Cc. H<sub>2</sub>O + solut. AgNO<sub>3</sub>—at most sl. opalesc. turb.—(H<sub>2</sub>SO<sub>4</sub>; H<sub>2</sub>C<sub>2</sub>O<sub>4</sub>) 5 Cc. + 25 Cc. H<sub>2</sub>O + solut. BaCl<sub>2</sub> & CaCl<sub>2</sub>—no turb.—(Heavy Met.) 5 Cc. + 25 Cc. H<sub>2</sub>O + aqu. H<sub>2</sub>S—no react.—*Uses:* In various reagents for dextrose; determ. boric acid, testing creosote, &c.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Glycerin Dichlorhydrin.**—see **Dichlorhydrin, Alpha-**

**Glycerin Tributyril.**—see **Butyrin**

**Glycerite Aluminum Acetate.**—see **Aluminum Acetoglycerinate**

**Glycerite Bismuth.**—N. F.

Glycerinic solut. cont. abt. 25% Bism. & Sod. Tartr.

**Glycerite Boric Acid.**—see **Boroglycerin**

**Glycerite Boroglycerin.**—U. S. P.

(Solution of Boroglyceride; Glycerite of Glyceryl Borate).—31% boric acid in glycerin.—Thick, sweet, colorl. liq.—*Sol.* W.—*Antisep.*—*Uses:* *Extern.*, injured & diseased surf.

**Glycerite Carbolic Acid.**—see **Glycerite Phenol**

**Glycerite Egg Yolk**

(Glyceonin).—Mixt. of 55% glycerin & 45% fresh yolk of egg.—Thick syrup; forms an opaque emulsion with W.—Protective; Emulsifier.—*Uses:* Vehicle for cod-liver oil, & as application to burns, fissured nipples & in erysipelas.

**Glycerite Gallic Acid**

Glycerin (80), gallic acid (20).—Antiseptic; Astring.—*Uses:* Skin dis., night sw., pyrosis, albumin., & hemat.—*Dose* 20-60 m (1.3-4 Cc.).

**Glycerite Guaiac.**—N. F.

By macerating 85 Gm. guaiac in 65 Cc. solut. KOH & W., adding 600 Cc. G., & W. to make 1000 Cc.

**Glycerite Hydrastis.**—U. S. P.

(Fluid Hydrastis).—Fr. hydrastis (1000) by exhaust. w. alc., evaporating, mixing residue w. cold W. (500), filtering, & adding glycerin (500) & W. (to make 1000).—*Antisep.*; Alter.; Tonic.—*Uses:* *Extern.*, inflam. genito-urin. org.

**Glycerite Iron Quinine & Strychnine Phosphates.**—U. S. P.

Solut. of solub. ferric phosph. (80), quinine (104), strychnine (0.8), phosph. acid (200), glycerin (500), & water (to make 1000).—Ferruginous tonic.—*Dose* 15 m (1 Cc.).

**Glycerite Pepsin.**—N. F.

Fr. pepsin 85 Gm., HCl 10 Cc., G. 500 Cc., & W. to make 1000 Cc.

**Glycerite Phenol.**—U. S. P.

(Glycerite Acid Carbolic).—Glycerin (80) with liquef. phenol (20).—*Sol.* W., A.—*Antisep.*—*Uses:* Dil., intern. & extern. antisept. in diphth. aphthae, wounds, bruises, burns, leucor., pruritus, gonorr., &c. For extern. use reduce with 3-5 vols. W.—*Dose* 5-20 m (0.3-1.3 Cc.), w. W.

**Glycerite Starch.**—U. S. P.

(Plasma).—10% starch & 10% W. w. 80% glycerin.—Translucent jelly.—*Uses:* Inst. of oint., excipient, &c.

**Glycerite Sulphurous Acid**

Sulphur dioxide in glycerin.—Colorl., syrupy liq.—*Sol.* W. & A.—*Antisep.*—*Uses:* *Extern.*, skin dis., sore mouth, tonsil., &c.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Glycerite Tannic Acid.**—*U. S. P.*

(Glycerite of Tannin).—Glycerin (80), tannic acid (20).—Brown, syrupy liq.—*Sol. W., A.*—Antisept.; Astring.—*Uses:* Skin dis., fissured nipples, inflam. of genito-urin. org., erysipelas, ulc., & sores.—*Dose* 20–60 ℥ (1.3–4 Ce.), dil.

**Glycerite Tar.**—*N. F.*

Tar, 63 Gm.; glycerin, 250 Ce.; alcohol, 125 Ce., & W. to make 1000 Ce.—Dark-brown liq.; odor & taste of tar.—*Sol. W., A.*—Antisept.; Expectant.—*Uses:* Intern., for sore throat, colds, coughs, &c.—*Extern.* ulcers, sores, & skindis.—*Dose* 60–120 ℥ (1.8 Ce.).

**Glycerite Tragacanth.**—*N. F.*

Powd. tragac., 125 Gm., G, 775 Ce. & W, 185 Ce.

**Glycerol.**—see **Glycerin**

**Glycerolates.**—see **Glycerites**

**Glyceryl Borate.**—see **Boroglycerin**

**Glycin.**—see **Glycocol**

**Glycocol Merck** (75)

(Aminonitric Acid; Glycin).— $C_2H_5NO_2$ , or,  $CH_2(NH_2)COOH$ .—Wh. cryst.—*Sol. W.*—*Melt.* 232–236° C.

**Glycocol Hydrochloride Merck** (75)

$C_2H_5NO_2.HCl$ , or,  $CH_2(NH_2)COOH.HCl$ .—Acid, deliq. cryst.; astring.—*Sol. W.*; sl. in A.

**Glycocolphenetidine.**—see **Phenocol**

**Glycogen Merck** (800)

Constituent of normally functioning liver of the human being & of ruminants.— $6(C_6H_{10}O_5) + H_2O$  (Kütz. & Bornträger).—Yellowish-wh. powd.—*Sol. W.* Solut. dextrogyrate.

**Glycogenäl Rörig-Merck** (75)

Substance allied to glycogen.—Yellowish powd.—*Sol. W.*; insol. A. & E.—Tonic & Bacteric.—*Uses:* Recommended in combination w. tuberculin injections in tuberculosis, & also in inoperable carcinoma, purulent ear discharge, gum boils, typhoid, puerperal fever, caries, scarlet fever, Basedow's disease, & coma of diabetes.—*Doses:* Intern., 5–8 grains (0.3–0.5 Gm.), twice daily; *subcut.*,  $\frac{2}{3}$  grain (0.04 Gm.) dissolved in W. Per clysm., a mixt. of glyco-genäl 30 grains (2 Gm.), ammonium carbonate 8 grains (0.5 Gm.), & water 13 fl. dr. (50 Gm.); also in supposit. ea. contain 5 grains (0.3 Gm.).

**Glycol.**—see **Ethylene glycol**

**Glycol Chlorhydrin.**—see **Ethylene Chlorhydrin**

**Glycol-monacetin.**—see **Ethylene Monacetate**

**Glycoluril.**—see **Acetylene-urea**

**Glyconin.**—see **Glycerite Egg Yolk**

**Glycophenol.**—see **Benzosulphinide; Saccharin**

**Glycosal** (25)

(Monosalicylic-acid Glycerin Ester Merck).— $C_6H_4.OH.COOC_3H_5(OH)_2$ .—Wh., cryst. powd.—

*Sol.* 100 W., ens. hot W., & A.; sl. E., C.—*Melt.* 76° C.—Antisept.; Antirheum.—*Uses:* Rheum., cystitis, &c., like salicylic acid; said to be free fr. by-effects of a salicylates.—*Dose* 150–180 grains (10–12 Gm.) & upwards p. d.—*Appl.* 20% alc. solut. in artie. rheumat. & serous gonitis.—Glycosal also eligible for rectal admin.

**Glycosalicylic Aldehyde.**—see **Helicin**

**Glycosamine Hydrochloride Merck.** Cryst. (500)

Decomp. product of chitin, by HCl w. heat.— $C_6H_{11}NO_5.HCl$ .—Wh., cryst. powd.; reduces Fehling's solut.; not fermentable.—*Sol. W.*

**Glycosine.**—see **Benzosulphinide; Saccharin**

**Glycyrrhiza.**—*U. S. P.*

(Licorice; Liquorice; Sweet Root).—Dried rhizome & root of *Glycyrrhiza glabra*, L. (Spanish Licorice), Leguminosae. Papilionaceae; also of *G. glandulifera*, Waldbst., & *Kitabel* (Russian Licorice).—*Habit.*: Southern Europe to central Asia.—*Etymol.*: Grk. "glykys," sweet, & "rhiza," root. Lat. "glaber," smooth, hairless, i.e., the leaves are smooth on both sides. "Liquorice," fr. "liquiritia," is a corrupted form of "glycyrrhiza."—*Constit.*: Glycyrrhizin,  $C_{44}H_{63}NO_{16}$ ; asparagin; sugar; resin; glycyrramarin,  $C_{30}H_{57}NO_{13}$ .—Demule.; Expectant.; Lax.; Slight Stim. Locally; Corrigent.—*Uses:* Chiefly to cover unpleasant taste of bitter medicines.—*Doses:* 15–60 grains (1–4 Gm.) or more.—*Fld.* extr., 1–4 fl. dr. (4–15 Ce.).

**Glycyrrhizin Ammoniated Merck.**—Clearly soluble (4)

Active sweetening substance fr. *Glycyrrhiza glabra*, L.; neut. ammon. salt of glycyrrhizic acid,  $C_{44}H_{63}NO_{16}$ .—Dark-brown, or brownish-red, sweet scales.—*Sol. W., A.*—Expectant.; Demule.—*Uses:* Chiefly with bitter or neut. medic., to cover taste; also as cough remedy.—*Dose* 5–15 grains (0.3–1 Gm.).—*Techn.*, as foam in mineral-water.—*Incomp.*, acids.

**Glyoxyldiureid.**—see **Allantoin**

**Gnaphalium.**—see **Helichrysum**

**Gnaphalium Flowers**

(Life Everlasting; Catsear; Catsfoot; Catpaw; Cotton Weed).—Flowers of *Gnaphalium dioica*, L. (*Antennaria dioica*, L.) Compositae.—*Habit.*: Northern Europe; Asia; North America.—*Etymol.*: Fr. Grk. "gnaphalon," wool or felt, i.e., the plant has a wooly appearance. Pappus of plant resembles the antennae of an insect, hence the name "antennaria."—*Constit.*: Resin; tannin.—Tonic; Astring.—*Uses:* Catarrh. affect.—*Dose*: *Fld.* extr., 30–60 ℥ (2–4 Ce.).

**Goa Powder.**—see **Araroba**

**Goa Powder, Purified.**—see **Chrysarobin**

**Goadby's Solution**

Solut. 0.2 mer uric chloride, 120 Gm. sod. chloride, & 60 Gm. alu i W. to make 3000 Ce.—*Uses:* Preserv. lower forms of marine animals.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Goanese Ipocac.*—see **Naregamia**

*Goal's Rue.*—see **Galega**

**Gold Merck.**—Powder or foil (1700

*Ethymol.*: Fr. Anglo-Saxon "geolu, giolo," yellow; also "auric," & "aurous," fr. Lat. "aurum," calling to mind the Hebrew, "or," light, or the root-form "aus," with the basic designation "roth," i.e., from, or of, red.—Pure gold.—Au.—Melt. 1065° C.—*Uses*: *Techn.*, jewelry, dentistry, manuf. gold-leaf, wire, alloys (coins), amalgams for fire-gilding, gold bronze, & for gilding.

**do. Merck.**—Precip. (1700

Lusterl., yellowish-brown to brown powd.

*Gold Bromide.*—see **Gold Mono- & Tri- bromide**

*Gold Brown.*—see **Bismarck Brown**

**Gold Chloride Merck.**—Yellow cryst. (235

(Auric Chloride; Gold Trichloride).— $\text{AuCl}_3 + \text{HCl} + 4\text{H}_2\text{O}$ .—Yellow cryst.—*Sol.* W., A., E.—Contains abt. 49% gold.—*Uses*: Phot. & electro-plating.—*Caut.* Keep dry & fr. light.

**do. Merck.**—Brown, cryst. (250

$\text{AuCl}_3 + \text{HCl} + x\text{H}_2\text{O}$ .—Brown masses.—*Sol.* W., A., E.—Antituberc.; Alter.—*Uses*: Phth. & o. tuberc. affect.; lupus.—*Dose*  $\frac{1}{60}$ – $\frac{1}{15}$  grain (0.001–0.004 Gm.).—*Max. D.*  $\frac{1}{3}$  grain (0.02 Gm.) single; 1 grain (0.06 Gm.) p. d.—*Techn.*, in phot., &c.—Contains abt. 50–51% gold, & less W. than the yellow cryst.—*Caut.* Keep dry, fr. light.

**Gold Chloride Paper**

(Böttger's Ozone Paper).—Wh. paper impregn. w. an acid-free solut. gold chloride & dried.—*Uses*: Detecting ozone (violet color).

*Gold Cyanide.*—see **Gold Mono- & Tri- cyanide**

**Gold Iodide Merck** (1500

(Aurous Iodide).—AuI.—Greenish-yellow powd.—Alter.—*Uses*: Scrof. & tuberc. dis.—*Dose*  $\frac{1}{60}$ – $\frac{1}{8}$  grain (0.001–0.008 Gm.).

**Gold Monobromide Merck** (712

(Aurous Bromide).—AuBr.—Yellowish masses.—Insol. in W.—Anti-epileptic; Anod.; Nerv.—*Uses*: Epilepsy, migraine, &c.; said to act quickly & continuously in small doses & without bromism.—*Dose*: Antiepilep.,  $\frac{1}{10}$ – $\frac{1}{5}$  grain (0.006–0.012 Gm.) 2 or 3 t. p. d. in pills; anod.,  $\frac{1}{20}$  grain (0.003 Gm.) 2 t. p. d. Children, half as much.

**Gold Monocyanide Merck** (1140

(Aurous Cyanide).—AuCN.—Lemon-yellow, cryst. powd.—Insol. in W., A., or E.—Antitubercular.—*Dose*  $\frac{1}{15}$ – $\frac{1}{4}$  grain (0.004–0.015 Gm.) several t. p. d. in pills or tablets.—*Antid.*, emetics, stomach siphon, artifl respir., iron persulphate & protosulphate, ammonia, chlorine, hot & cold douche, &c.—*Caut.* Poison!

*Gold Orange.*—see **Methyl Orange**

**Gold Oxide Merck** (712

(Auric Oxide; Gold Trioxide).— $\text{Au}_2\text{O}_3$ .—Brown powd.—*Sol.*, hydrochloric acid.—Alter.; Antituberc.—*Uses*: Chronic rheum., scrof., syph., phth., &c.—*Dose*  $\frac{1}{20}$ – $\frac{1}{4}$  grain (0.003–0.015 Gm.).—*Techn.*, for fixing Daguerreotypes, in gilding liquids, coloring rubber for false teeth, porcelain manuf., &c.—*Caut.* Dark-colored bot.

**Gold-Palladium Chloride Paper**

Wh. paper charged w. a solut. of gold & palladium chlorides & dried.—*Uses*: Analysis of illuminating gas.

**Gold Sulphide Merck** (2000

(Aurous Sulphide).— $\text{Au}_2\text{S}$ .—Brown-black powd.

*Gold-Tin Precipitate.*—see **Gold-Tin Purple**

**Gold-Tin Purple Merck** (300

(Purple of Cassius; Gold-tin Precipitate).—Mixture of gold chloride & tin oxide in varying proportions.—Fr. dil. neut. solut. gold chloride w. stannous, & stannic, chloride.—Brown powd.—*Sol.*, ammonia.—*Uses*: *Techn.*, manuf. ruby glass, colored enamels, & painting porcelain.

**Gold Tribromide Merck** (570

(Auric Bromide).— $\text{AuBr}_3$ .—Dark powd.—*Sol.* W., E.—*Uses*, *Dose*, &c. As of monobromide.—*Caut.* Keep fr. light.

*Gold Trichloride.*—see **Gold Chloride**

**Gold Tricyanide Merck** (1140

(Auric Cyanide).— $\text{Au}(\text{CN})_3 + 3\text{H}_2\text{O}$ .—Wh., hygroscop. cryst.—*Sol.* W.—*Uses*: Antituberc.—*Dose*  $\frac{1}{20}$ – $\frac{1}{10}$  grain (0.003–0.006 Gm.).—*Antid.*, as for gold monocyanide.

*Gold Trioxide.*—see **Gold Oxide**

*Gold Yellow.*—see **Yellow T**

*Gold & Ammonium Rhodanide.*—see **Gold & Ammonium Sulphocyanate**

**Gold & Ammonium Sulphocyanate Merck** (500

(Gold & Ammonium Rhodanide).— $\text{AuNH}_4(\text{CNS}) + \text{NH}_4\text{CNS}$ .—Brownish-yellow mass.—*Sol.* W.

**Gold & Cadmium Chloride Merck** (1000

Dark-yellow cryst.—*Sol.* W.

**Gold & Calcium Chloride Merck** (850

(Calcium Aurichloride, or Chloraurate).— $\text{CaCl}_2 \cdot 2\text{AuCl}_3 + 6\text{H}_2\text{O}$ .—Yellow cryst.—*Sol.* W.

**Gold & Potassium Bromide Merck** (900

(Potassium Auribromide).— $\text{AuBr}_3 \cdot \text{KBr} + 2\text{H}_2\text{O}$ .—Yellow need.—*Sol.* W.—Antiepilep.; Sed.—*Uses*: Epilepsy, hyst., &c.—*Dose*  $\frac{1}{6}$ – $\frac{2}{3}$  grain (0.01–0.04 Gm.), subcutan.

**Gold & Potassium Chloride Merck.**—Pure, Cryst. (800

(Potassium Aurichloride).— $\text{AuCl}_3 \cdot \text{KCl} + 2\text{H}_2\text{O}$ .—Yellow cryst.—*Sol.* W.—*Uses*: In photography, & in painting porcelain & glass.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyosecyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Gold & Potassium Cyanide Merck** (1855  
(Potassium Cyanurate).— $\text{KAu(CN)}_2$ .—Wh.  
cryst. powd.—*Uses*: Active antisept. One part  
to 25,000 blood serum prev. microbes. Also  
techn. for electrogilding.—*Antid.*, emetics,  
stomach siphon, iron persulphate & protosul-  
phate, douche, artif'l respir., ammonia, chlor-  
ine, &c.—*Caut.* Poison!

**Gold & Potassium Iodide Merck** (1700  
(Potassium Auriodide).— $\text{AuI}_3 \cdot \text{KI}$ .—Lustrous,  
black cryst.—*Sol.*, in W. w. decomposition.

**Gold & Sodium Bromide Merck** (300  
(Sodium Auribromide).— $\text{AuBr} \cdot \text{NaBr} + 2\text{H}_2\text{O}$ .—  
Black cryst.—*Sol.* W.—Antiepileptic.—*Uses*:  
In solut. 2-100 distil. W.—*Dose* 8 m (0.5 Ce.)  
of solut., hypoderm.; grad. incr. to 30 m (2 Ce.).

**Gold & Sodium Chloride Merck** (117  
(Sodium Aurichloride).—Mixt. eq. parts by wt.  
of  $\text{AuCl}_3 + \text{NaCl}$ .—Yellow cryst.—*Sol.* W.—  
Alter.; Nerv.—*Uses*: Syph., whoop-cough, can-  
cer, hyst., neural., rheum., dipsomania, progres-  
sive paralysis of syphilitic origin, &c.—*Doses*:  
 $\frac{1}{24}$ — $\frac{1}{6}$  grain (0.0025-0.01 Gm.); *subcut.*,  $\frac{1}{12}$   
grain (0.005 Gm.).—*Techn.*, in photography,  
decorating porcelain, & staining glass.—*Incomp.*,  
silver nitrate, ferrous sulphate, & oxalic acid.—  
*Caut.* Keep well stoppered.

**Gold & Sodium Cyanide Merck** (2000  
(Sodium Aurocyanide).— $\text{NaAu(CN)}_2$ .—Whit-  
ish, cryst. powd.—*Sol.* W.—*Uses*: Electro-  
gilding.—*Antid.*, as of gold & potassium cyanide.  
—*Caut.* Poison!

**Golden Maidenhair.**—see **Polytrichum**

**Golden Moss.**—see **Penghawar Djambi**

**Golden Ragwort.**—see **Senecio Aureus**

**Goldenrod, European.**—see **Solidago Virgaurea**

**Goldenrod, Sweet-scented.**—see **Solidago Odora**

**Golden Seal.**—see **Hydrastis**

**Goldthread.**—see **Coptis**

**Golgi's Osmic-Silver Nitrate**

Consists of 2 soluts.: (a), 1.6 Gm. potass. dichro-  
mate, 0.1 Gm. osmic acid, & 90 Ce. W.; (b), an  
aqu. 0.75% solut. silver nitrate.—*Uses*: Demon-  
strating proliferations of ganglia cells.

**Gomenol**

(Niaouli Oil).—Volat. oil fr. lvs. *Melaleuca viridi-  
flora*, a Myrtaceæ found in New Caledonia near  
Gomen.—60% cineol, some terpineol, & traces  
of acetic, butyric, & valeric acids.—Sp. Gr.  
0.922.—Antituberc.—*Uses*: Phth., bronchitis,  
rheum., neuralg., cystitis, whoop-cough.—  
*Dose* 4 m (0.25 Ce.) in gel. caps. 4-10 t. p. d.—  
*Hypoderm.* in whoop-cough in children, in  
20% olive-oil solut., 45-240 m (3-15 Ce.) accord.  
to age.—*Inj.*, in cystitis, 2% solut.

**Gommelmin.**—see **Dextrin, Granulated**

**Gossypin (Eclectic)** (40  
Extr. fr. root-bark of *Gossypium herbaceum*, L.  
(Cotton-root bark).—Brown powd.—Emmen.  
—*Uses*: In labor, uter. hemorrhage, &c.—  
*Dose* 3-10 grains (0.2-0.6 Gm.).

**Gossypium Bark.**—*U. S. P.*

(Cotton-root Bark).—Dried bark of the root of  
*Gossypium herbaceum*, L., & of other culti-  
spec. of *Gossypium*. Malvaceæ.—*Habit.*: Asia  
(India, China, Arabia); Egypt; U.S.; W. Indies;  
S. America; Australia; Spain, &c.—*Etymol.*: Fr.  
Arabic "goz, gothn," a soft, silky substance;  
e.g., cotton; "herbaceum," fr. Lat. "herbaceus,"  
grassy, herb-like—the plant's habit.—Thin flex-  
ible bands or quilled pieces; extern., brownish-  
yellow; inner surface whitish w. silky luster;  
inodor.; taste very sl. acid & faintly astring.  
—*Constit.*: Yellow chromogen; yellow resin;  
fixed oil; tannin; sugar.—Emmen.; Oxytocic.  
—*Uses*: Amenor. & menor.; also inst. of ergot  
to promote uterine contract., hence employed  
in primary & secondary labor-pain inefficiency,  
& as a hemostat. in metror. (fibromyoma),  
&c.—*Doses*: 30-60 grains (2-4 Gm.).—Alcoh.  
extr., 3-10 grains (0.2-0.6 Gm.).—Fld. extr.,  
30-90 m (2-6 Ce.); up to 6 fl. dr. (25 Ce.) p. d.

**Gossypose.**—see **Raffinose**

**Goulard's Extract.**—see **Lead Subacetate, Solu-  
tion**

**Gouwer's Reagent.**—For albumen

Aqu. solut. potass. iodide & mercuric cyanide.  
—Gives a white ppt. w. albumin.

**Grains of Paradise.**—see **Amomum Melegueta**

**Graminis.**—see **Triticum**

**Granatonine.**—see **Pseudopelletierine**

**Granatum.**—*U. S. P.*

(Pomegranate).—Bark of stem & root of *Punica  
Granatum*, L. Punicaceæ.—*Habit.*: Mediterrane-  
an region; eastern, western, & southern Asia;  
cultivated in subtropical countries.—*Etymol.*:  
Lat. "puniceus," i.e., Punice, of or pertaining to  
Carthage, near which city it was said to have  
been first found; or, fr. Lat. "puniceus," scarlet,  
i.e., the color of the berries. "Granatum" fr. Lat.  
"granum," corn, or seed, i.e., the many-seeded  
fruit. "Pomegranate" fr. Lat. "pomum," fruit,  
& "granatum," seeded, i.e., many-seeded fruit.—  
Stem Bark: Thin quills or fragments, 2-4 in.  
(5-10 Cm.) long &  $\frac{1}{25}$ - $\frac{1}{8}$  in. (1-3 Mm.) thick;  
extern., yellowish-gray; inner surface grayish-  
yellow & smooth; short, gran., greenish-yellow  
fract.; inodor.; astring., v. slightly bitter taste.  
—*Constit.*: Punico-tannic acid,  $\text{C}_2\text{H}_{16}\text{O}_{13}$ ; pel-  
letierine (punicine)  $\text{C}_8\text{H}_{15}\text{NO}$  (0.5-1.5%); methyl-  
pelletierine,  $\text{C}_9\text{H}_{17}\text{NO}$ ; pseudopelletierine,  $\text{C}_9\text{H}_{15}\text{NO} \cdot 2\text{H}_2\text{O}$ ; isopelletierine,  $\text{C}_8\text{H}_{15}\text{NO}$ ; mannit;  
sugar; gum.—Flowers contain granatin, tannin,  
& coloring matter.—Peel of fruit contains

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



tannin. — Anthelmintic; Teniafuge. — *Uses*: *Flowers*, as astring. in leucor., diar., &c., in infus. — *Peel*, as astring.; & techn. in dyeing. — *Root-bark*, in tape-worm, diar., night-sweats, & intermitt. fevers. — *Doses*: *Bark*, 30–120 grains (2–8 Gm.). — *Alcoh. extr.*, 5–10 grains (0.3–0.6 Gm.); as anthelm., 30–90 grains (2–6 Gm.). — *Fld. extr.*, 15–60 ℥ (1–4 Cc.); as anthelm., 4–12 fl. dr. (15–45 Cc.) in divided doses in 4 hours. — *Peel of fruit*, 20–30 grains (1.3–2 Gm.) in powd.

*Grape Sugar*. — see **Dextrose**

**Graphite (Ceylon) Merck.** — Lumps & fine Powder (1

(Black Lead; Mineral Carben; Plumbago; Wad). — Found native, both cryst. & amorph., in Ceylon, Siberia, Canada, & the United States. — *Uses*: Techn., for lead pencils, refractory crucibles, in galvanoplasties as pigment, lubricant, graphite cement, explosives, axle grease, polishing comp'ds, & for rust- & needle-paper.

do. Merck. — Purified (2

**Gratiola**

(Hedge Hyssop). — Whole plant *Gratiola officinalis*, L. Scrophulariaceae. — *Habit.*: Europe. — *Etymol.*: Lat. "gratia," grace, i.e., the person who experiences the violent effects of *gratiola* may well need the grace of God. — *Constit.*: Gratiolin; gratiolin; gratiolic acid. — *Drast.* Purg. (in gout). — *Max. D.* 15 grains (1 Gm.) single; 45 grains (3 Gm.) daily. — *Green alcoh. extr.*, 1–3 grains (0.06–0.2 Gm.); as drast. purg., 8 grains (0.5 Gm.) single; 15 grains (1 Gm.) per day.

**Gratiolin Merck** (450

Glucoside fr. herb of *Gratiola officinalis*, L. —  $C_{20}H_{34}O_8$ . — Brownish-yellow powd.; lacks drastic purgative effect of herb. — *Sol.* A.; sl. in W.

*Gravel Plant*. — see **Epigæa**

*Gravel Root*. — see **Eupatorium Purpureum**

*Green Hellebore*. — see **Helleborus Viridis**; **Veratrum Viride**

*Green Soap*. — see **Soap, Soft**

*Green Verdigris*. — see **Copper Acetate, Basic**

*Green Vitriol*. — see **Iron Sulphate, Crude**

*Greenish Blue*. — see **Methyl Blue**

*Gregory's Salt*. — see **Salt, Gregory's**

**Grenacher's Alcoholic Acid Carmine**

1 Gm. carmine, 1–2 Cc. HCl., & 100 Cc. dil. A. (sp. gr. 0.890). — *Uses*: Staining nuclei.

**Grenacher's Alcoholic Borax-Carmine**

2 Gm. carmine & 4 Gm. borax in 100 Cc. W. & 100 Cc. dil. A. (sp. gr. 0.890). — *Uses*: Staining nuclei.

**Grenacher's Alum-Carmine**

5 Gm. potass. alum & 1 Gm. carmine in 100 Cc. W. — *Uses*: Stain (bluish-red) for nuclei, and for muscle tissue.

**Grenacher's Purpurine-Glycerin**

Solut. abt. 1 Gm. purpurine (trioxanthraquinone) & 1 Gm. potassium alum in 50 Cc. G. — *Uses*: Stain nuclei a delicate rose-red.

**Griess' Paper.** — Red

Wh. paper, charged w. sulphanilic acid & naphthylamine sulphate. — *Uses*: To detect nitrous acid & nitrites (red color) in urine; also bilirubin & aldehydes.

do. — Yellow

(Metaphenylenediamine Paper). — White paper charged w. sulphanilic acid & metaphenylenediamine. — *Uses*: Delicate test for nitrites (yellowish-brown).

**Griess' Reagent.** — For nitrous acid

Solut. alphanaphthylamine & sulphanilic acid in glacial acetic acid. — Gives a red color w. traces of nitrous acid.

**Grindelia.** — U. S. P.

(Gum-plant). — Dried lvs. & flowering tops of *Grindelia robusta* Nuttall, & of *G. squarrosa* Dunal. Compositæ. — *Habit.*: North America (California). — *Etymol.*: Named for D. H. von Grindel, an apothecary & botanist of Riga (1776–1836). "Robusta," fr. Lat. "robustus," fr. "robur," strength, i.e., the strongest, or hardest variety. Lat. "squarrosus," scaly, referring to the involucre. — *Constit.*: Volat. oil; resin; grindeline; saponine; robustic acid. — *Expector.*; *Antispasm.*; *Sedat.*; *Tonic*; *Stomachic*; *Diuretic*. — *Uses*: Asthma, bronch., hay fever, whoop-cough, bladder catarrh, chron. vaginitis. — *Extern.*, in burns, leucor., gonorr., &c. — *Doses*: 15–60 grains (1–4 Gm.). — *Aqu. extr.*, 3–10 grains (0.2–0.6 Gm.). — *Fld. extr.*, 30–60 ℥ (2–4 Cc.). — *Tinct.*, 30–60 drops.

**Griserin**

Loretin rendered soluble by combin. w. alkalis. — *Intest.* Bactericide & Disinfect. — *Uses*: Tuberculosis, lupus, psoriasis, eczema, & all bacterial diseases. — *Dose* 5–15 grains (0.3–1 Gm.).

*Gromwell*. — see **Lithospermum**

*Groundsel*. — see **Baccharis**; **Senecio Vulgaris**

**Guacamphol**

(Guaiacol Camphorate). —  $C_8H_{14}(COO.C_6H_4.O.CH_3)_2$ . — Fr. camphoric acid & guaiacol. — Colorl., odorl., tastel. need. — *Sol.*, eas. hot A., C.; insol. W. — *Anthidrotic*. — *Uses*: Night-sweats & diar. of phthisis. — *Dose* 3–15 grains (0.2–1 Gm.).

*Guacetin*. — see **Guaiacetin**

**Guaco** (see also **Aristolochia Cymbifera**)

Whole plant *Mikania Guaco* Hb. & Bpl. Compositæ. — *Habit.*: U. S. of Colombia; Mexico; Martinique. — *Etymol.*: "Guaco" is the Brazilian name of a species of falcon which is said to render itself immune against snake bites by partaking of this plant. — *Constit.*: Guacin (a bitter principle). — *Antispasm.*; *Antisyphilitic*;

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

febrif., Anthelmint.—*Uses*: Snake-bite, cholera, diar. & chron. rheum.—*Doses*: 15–75 grains (1–5 Gm.) in powd., or 5–8 fld. dr. of 1:50 infus.—1 fld. extr., 30–60 ℥ (2–4 Ce.).—Tinct., 1–4 fl. dr. (4–15 Ce.).

**Guaethol Merck** (30)  
(Guaicol-ethyl; Guethol; Pyrocatechin Monomethyl Ester).— $C_6H_4(OC_2H_5)OH$ .—Oily, alm. colorl. liq.; pleas., arom. odor; solidifies on cooling to a cryst., colorl. mass.—*Melt* 27–28° C.—*Boil.*, abt. 215° C.—*Sol.* A., C., E.; insol. W.—Antitubercular.—*Dose* 4–8 ℥ (0.25–0.5 Ce.) in alcohol, solut. or wine. The cryst. may be given in pill or powd., 2–4 t. p. d.

**Guaiaic.**—*U. S. P.*  
(Gum Guaiaic; Resin Guaiaic).—Resin of the wood of *Guaicum officinale*, L., or *G. sanctum*, L. Zygophyllaceae.—*Habit.*: West Indies; Central America.—*Etymol.*: Lat. fr. Spanish "guayaco, guayacan," the native Haytian name.—Irreg., greenish-gray brown masses; brittle, vitreous fract.; fusible; balsamic odor & slightly acid taste; not more than 15 per cent. insoluble in alcohol.—*Constit.*: Guaiaietic acid; guaiaconic acid; guaiaic beta-resin; guaiaic acid; guaiaic yellow.—*Antisyphil.*; Alterative; Antirheumat.; Antipodagr.; Antiserofular.—*Dose* 5–30 grains (0.3–2 Gm.) in powd. or tinct.

**Guaiaic-Copper Sulphate Paper**  
(Schönbein-Pagenstecher's Paper).—Wh. filtering paper impregn. first w. an alcohol. solut. guaiaic resin, then, after drying, w. an aqu. solut. copper sulphate.—*Uses*: Detecting HCN (slightest trace colors paper blue).

**Guaiaicetin** (70)  
(Guacetin; Sodium Pyrocatechinmonacetate; Sodium Phenonacetate).— $C_6H_4(OH).OCH_2COONa$ .—Wh. powd.—*Sol.* W.—*Uses*: Recommended instead of eucosate in tuberculosis.—*Dose* 8 grains (0.5 Gm.) several t. p. d.

**Guaiaicin Schmitt-Merck.**—Reagent (250)  
Brownish, amorph. powd.—Obt. by spec. method fr. guaiaic wood.—*Sol.* A.—Excellent reagent for oxydases (blue color). More sensit. than guaiaic resin; used as 5% alcohol. solut., which keep in compl. filled bots. in dark.—*Uses*: Especially sensitive reagent for oxydases.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Guaiaicol Merck** (3)  
(Monomethylcatechol; Methyl Ester of Proocatechin; Pyrocatechin Monomethyl Ester).—Fr. beechwood creosote by fract. distill'n.— $C_7H_5O_2$ , or  $C_6H_4(OH).OCH_3$  [1:2].—Faintly yellowish, limpid, oily liq.; charact. arom. odor.—*Sp. Gr.* 1.110–1.120 at 15° C.—*Sol.* A., E., carbon disulph.; abt. 60–70 W.; 1 G.; acetic acid.

—*Boil.* 201–207° C.—Antituberc.; Antisep.; Antipyr.; Analg.—*Uses*: Phth., lupus, & intest. tuberculosis; febrile affect. Must be used long time to get maximum benefit.—*Dose* 2 ℥ (0.12 Ce.) 3 t. p. d., grad. increased to 15 ℥ (1 Ce.), in pills, or in 1–2% solut. brandy, wine, &c., after meals.—4 *pph.* (Analg. & Antipyr.) 15–30 ℥ (1–2 Ce.), pure or with eq. part oil, alcohol, or glycerin.—Must not be exposed to light.

*Note*.—Guaiaicol Merck is to be preferred on account of its uniformity of composition & the reliability of its action.

**Guaiaicol Merck.**—Cryst. (10)  
Colorl. cryst.—*Sol.* A., E., oils; sl. W.—*Melt.* 28.5° C.—*Boil.* 205° C.—*Sp. Gr.*, abt. 1.140 at 25° C. (U. S. P.).—*Uses*, &c.: As of preceding.—*Dose* 2 grains (0.12 Gm.) 3 t. p. d., grad. increased to 15 grains (1 Gm.), given as above.

**Guaiaicol Benzoate.**—see **Benzosol**

**Guaiaicollbenzyl-ether.**—see **Brenzcaïn**

**Guaiaicol Cacodylate Merck** (25)  
Reddish-wh. cryst.—*Sol.* W.—*Uses*: In tuberculosis by subcut. inject. in oily mixt.

**Guaiaicol Camphorate.**—see **Guacamphol**

**Guaiaicol Carbonate** (30)  
(Duotal; Guaiaicol Ester of Carbonic Acid; Neutral Guaiaicol Carbonate).— $C_{15}H_{14}O_9$ , or  $(C_6H_4(OCH_3)CO_2)_2$ .—Obt. by action of carbonyl chloride on sodium-guaicolate.—Wh., cryst. powd.; odorl.; tastel.—*Sol.* 48 A., 1.5 C., 13 E., at 25° C.; read. hot A. & B.; sl. G. & fatty oils; insol. W. (U. S. P.).—*Melt.* 84–87° C. (U. S. P.).—Antituberc.; Antisep.—*Uses*: Tuberculosis inst. of guaiaicol & eucosate.—*Dose* 3–8 grains (0.2–0.5 Gm.) 3 t. p. d., grad. increased to 90 grains (6 Gm.) per day.

**Guaiaicol Cinnamate.**—see **Styracol**

**Guaiaicol-ethyl.**—see **Guaethol**

**Guaiaicol Ethylene Merck** (75)  
(Guaiaicol Ethylene Ether).— $(CH_3O.C_6H_4O)_2.C_2H_4$ .—Colorl., cryst. need.—*Sol.*, eas. A.; diffic. in W.—*Melt.* 138–139° C.—*Uses*: In phth. like other guaiaicol derivatives.—*Dose* 8–15 grains (0.5–1 Gm.) 2 t. p. d.

**Guaiaicol Glyceryl-ether.**—see **Guaiamar**

**Guaiaicol-iodoform Merck** (35)  
Solut. iodoform in guaiaicol.—Reddish-brown liq.—*Uses*: In tuberculosis & pleurisy, by French physicians.—*Dose*, by subcut. inject. up to 3 Ce. of a 1:16 olive-oil solut., in the supraspinous fossa.

**Guaiaicol Oleate.**—see **Oleoguaiaicol**

**Guaiaicol Phosphate Merck** (50)  
Fr. guaiaicol diss. in dil. soda solut., by  $POCl_3$  in the cold.— $(C_6H_4O.CH_3O)_3PO$ .—Wh., cryst. powd.—*Sol.* A., C., toluene, acetone; insol. W.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



E.—*Melt.* 98° C.—*Uses, &c.*: As of guaiacol.—*Dose* 3–10 grains (0.36–0.6 Gm.) daily.

### Guaiacol Phosphite

(Guaiacophosphal).— $P(O.C_6H_4.OCH_3)_3$ .—Wh. powd.; pungent taste.—92.25% guaiacol.—*Sol.*, v. eas. W., & A.; G., E., C., acetone, oils.—*Melt.* 77.5° C.—Antituberc., &c., like guaiacol.—*Dose*: As of guaiacol, in pills, elixir, or wine.

*Guaiacol Salicylate*.—see **Guaiacol-Salol**

### Guaiacol-Salol Merck (32)

(Guaiacol Salicylate).— $C_{14}H_{12}O_4$ , or  $C_6H_4.O.CH_3.C_6H_5O_2$ .—Wh. cryst.—*Sol.* A.; insol. W.—*Melt.*, abt. 65° C.—Intest. Antisep.; Antituberc.; Antirheum.—*Uses*: Phth., diar., dysent., rheum., maras., chorea, &c.—*Dose* 15 grains (1 Gm.) sev. t. p. d.—*Max. D.* 150 grains (10 Gm.) p. d.

### Guaiacol Succinate

Fr. mixt. of guaiacol & succinic acid w. phosphorus oxychloride.— $(C_6H_4.OCH_3)_2.C_4H_4O_4$ .—Fine, wh. need.—*Sol.* C., acetone, toluene; sl. in A., E.; insol. W.—*Melt.* 136° C.—*Uses, &c.* As of guaiacol.

### Guaiacol Valerate Merck (25)

(Geosote).— $C_6H_4.OCH_3.O.COC_4H_9$ .—Colorl. to yellowish liq.—*Sol.* A. & E.—*Boil.*, abt. 265° C.—*Dose* 3 m (0.2 Ce.) us' yingelat. caps., 3–6 t. p. d.

*Guaiacophosphal*.—see **Guaiacol Phosphite**

### Guaiacum Wood

(Lignum Vitæ; Poekwood).—Heart-wood of *Guaiacum officinale*, L., & of *G. sanctum*, L. Zygophyllace.—*Habit.*: West Indies; Central America.—*Etymol.*: Lat. fr. Spanish "guayaco, guayacan," the native Haytian name.—*Constit.*: Resin; quassin; extractive.—*Alter.* (in gout, rheum. & syphilis); Diaphor.; Expector.; Stim.; Antisep.; Astring.—*Uses*: Scrofula, anenorr., scarlet fever, chron. rheum.—*Doses*: 30–120 grains (2–8 Gm.).—Aleo. extr., 3–10 grains (0.2–0.6 Gm.).—Fld. extr., 30–120 m (2–8 Ce.).—Tinct., 30–60 m (2–4 Ce.).—Ammon. Tinct., 30–60 m (2–4 Ce.).

### Guaiacyl

(Calcium Guaiacolmonosulphonate).— $Ca(C_6H_3.OH.OCH_3.SO_3)_2$ .—Bluish-gray powd.—*Sol.* 20 W., A.; insol. fatty oils.—Local Anesthetic.—*Uses*: Minor surgery, dentistry, &c.—*Appl.* 8–25 m (0.5–1.6 Ce.) of 5% solut. hypoderm.

*Guaiaciform*.—see **Methylenediguaiacol**

### Guaiamar (25)

(Guaiacol Glyceryl Ester).— $OCH_3.C_6H_4.O.C_3H_7O_2$ .—By action of guaiacol on anhydrous glycerin.—Wh., cryst. powd.; bitter, arom. taste.—*Sol.* 20 W., A., E., G., & C.—*Melt.* 75° C.—Intest. Antiseptic.—*Uses*: Intern., typhoid, phthisis, cystitis, chron. diar.—*Extern.*, in acute articular rheumat. (8:30 oint.), blenorragic arthritis, burns, phagedenic & syphilitic sores, &c.—*Dose* 3–15 grains (0.2–1 Gm.).

### Guaiaiperol (100)

(Piperidine Guaiacolate).— $(C_6H_4[OH]OCH_3)_2.C_6H_{11}N$ .—Colorl. cryst.—*Sol.* W., A., & E.—*Melt.* 80° C.—*Uses*: Pulmon. tuberculosis.—*Dose* 5–10 grains (0.3–0.6 Gm.) p. d.

### Guaiaquin (35)

(Quinine Guaiacolbisulphonate).— $C_6H_5O_2.C_6H_3.HSO_3.C_{20}H_{21}N_2O_2$ .—Yellowish, acid, bitter powd.; 61.36% quinine, 23.48% guaiacol.—*Sol.* W., A., dil. acids.—Antiperiodic; Intest. Antiseptic.—*Dose* 5–10 grains (0.3–0.6 Gm.) 3 t. daily, before meals.

### Guaiaquinol

(Quinine Dihydrobromoguaiacolate).— $C_{20}H_{24}N_2O_2.2HBr.C_6H_4.OH.OCH_3$ .—Yellow, hygrosc. cryst.—*Sol.* 23 W. at 15° C., & in less than 0.5 at 30° C.—Antitubercular; Antipyret.; Sedative.—*Dose* 8–20 grains (0.5–1.3 Gm.).

*Guajara*.—see **Psidium**

### Guanidine Carbonate Merck.—Cryst. (50)

(Carbamide Carbonate).— $C_2H_5N_6O_3$ , or  $(CH_5N_3)_2.H_2CO_3$ .—Wh. cryst.—*Sol.* W.

### Guanidine Hydrochloride Merck.—Cryst. (50)

$CH_5N_3Cl$ , or  $CH_5N_3.HCl$ .—Wh., cryst. powd.—*Sol.* W., A.

### Guanidine Nitrate Merck.—Cryst. (15)

$CH_5N_4O_3$ , or  $CH_5N_3.HNO_3$ .—Fine, cryst. powd.—*Sol.*, sl. W. & A.

*Guanidine Rhodanide*.—see **Guanidine Sulphocyanate**

### Guanidine Sulphocyanate Merck (12)

(Guanidine Sulphocyanide or Rhodanide).—Fr. dry amm. sulphocyanate by heat.— $C_2H_6N_4S$ , or  $(CH_5N_3).HSCN$ .—Wh. cryst.—*Sol.* W.—*Melt.* 120° C.

### Guanine Merck (1000)

(Imidoxanthine).—Fr. guano.— $C_5H_5N_5O$ , or  $NH.CH:N.C.C.CO.NH.(C.NH).NH$ .—Wh., amorph. powd.—*Sol.*, alkalies & acids; insol. W., A., & E.

### Guanine Hydrochloride Merck (1000)

$C_5H_5N_5O.HCl + H_2O$ .—Fine need., easily decomp.

### Guarana.—U. S. P.

(Brazilian Cocoa).—Dried paste consisting chiefly of crushed seeds of *Paullinia Cupana*, Kunth (P. sorbilis, Martius). Sapindaceæ.—*Habit.*: Brazil.—*Etymol.*: "Guarana," fr. "guaranis," the Brazilian name of a tribe of S. American Indians in whose territory the plant grows. "Paullinia," fr. C. F. Paullinia (1643–1712), a German botanist; or, perhaps, fr. "Simon Paulli," a German botanist (d. Rostock, 1603; d. 1680). Also named for Francis Cupani, an Italian monk, & botanist, died 1710. "Sorbilis," fr. Lat. "sorbere," to imbibe, i.e. fr. its use as a beverage.—*Constit.*: Caffeine; tannin; resin; volat. oil; saponin; starch; fat.—Antineuralgic;

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



Astring., Stim., Tonic, Nervine.—*Uses*: Headache, chron. diar., & nerv. affect.—*Dosag.*: 15-60 grains (1-4 Gm.).—*Alcal. extr.*: 2-5 grains (0.12-0.3 Gm.).—*Flid. extr.*: 20-60 M (1.3-4 Cc.).

*Guaranhem*.—see **Monesia Bark**

**Guaranine Merck** (250)

Tr. guarani. Chem. ident. w. caffeine & theine.— $C_{11}H_{13}N_4O_2 \cdot H_2O$ .—Wh. cryst.—*Sol.*: A.; insol. W.—*l*.—As of caffeine.—*Dos.*: 1-5 grains (0.05-0.3 Gm.).—See also Caffeine.

**Guaranine Triiodide Merck** (1250)

Dark green cryst.—*Uses & Doses*: As of caffeine triiodide.

**Guava**

(Common Guava; Bay Plum; Guajava; Djambou).—Lvs. of *Psidium pyrifolium*, L. Myrtaceae.—*Habit.*: Tropical Asia; Tropical America.—*Etymol.*: Fr. Grk. "psidion," pomegranate peel, fr. the resemblance this bears to that of guava "Pyriferum," fr. Lat. "pirus," pear, & "fero," to bear. "Guajava" is the South-American name of the plant.—*Constit.*: Tannin; guavin.—*Uses*: Styptic, & Astring. in chronic gastric & intest. catarrhs, diar., & dyspep.—*Doses*: 8-15 grains (0.5-1 Gm.).—*Flid. extr.*: 15 M (1 Cc.).

*Guaycura*.—see **Baycuro**

*Guenzburg's Paper*.—see **Phloroglucin-Vanillin Paper**

**Guenzburg's Solution Merck**.—For free HCl in gastric juice (10)

Solut. 2 Gm. phloroglucin & 1 Gm. vanillin in 30 Gm. A. On evaporating w. some of the liquid to be tested, a red marginal zone forms if free HCl is present.

*Guthol*.—see **Guaethol**

*Guilandina Bonducella*.—see **Bonduc**

*Guinea Grains*.—see **Amomum Melegueta**

**Gujasanol** (20)

(Diethylglycolcolguaiacol Hydrochloride).— $OC_{12}H_{17}C_{11}H_7O.CO.CH_2N(C_2H_5)_2.HCl$ .—Colorl. cryst.; faint odor guaiacol.—*Sol.*, v. cas. W.; diffic. A.; insol. E.—*Melt.*: 184° C.—Antituberc.—*Uses*: Intern., pulmonary, laryngeal, & intest. tuberculosis.—*Extern.*, ozema, cystitis, purulent sores, &c.—*Doses*: 15-180 grains (3-12 Gm.) p. d.—*Hypoderm.*, 45-60 grains (3-4 Gm.) p. d. in concent. aqu. solut.—*Appl.*, as 10-20% solut. in ozema, stomatitis, cystitis, ulcers, &c.; also as mild antiseptic in ophthalmology.

*Gum Ammoniac*.—see **Ammoniac**

*Gum Arabic*.—see **Acacia**

*Gum Benjamin*. }  
*Gum Benzoin*. } —see **Benzoin**

*Gum Camphor*.—see **Camphor**

*Gum Copal*.—see **Copal**

*Gum Damar*.—see **Damar**

*Gum Elastic*.—see **Rubber**

*Gum Elemi*.—see **Elemi**

*Gum Guaiac*.—see **Guaiac**

*Gum Kino*.—see **Kino**

*Gum Opium*.—see **Opium**

*Gum Plant*.—see **Grindelia**

*Gum Thus*.—see **Olibanum**

*Gum Tragacanth*.—see **Tragacanth**

**Gutta-Percha Merck**.—Sticks (15)

Concrete milky juice of *Isonandra Gutta* Hooker. Sapotaceae.—*Habit.*: Malayan Archipelago.—*Etymol.*: Lat. "gutta," drop, or gum, designates the thickened juice of the plant; "percha" is the Malayan name of the plant.—Grayish or yellowish sticks, frequently with red-brown streaks; hard, & rather leathery or horny; becomes very soft if placed in boil. W.—*Sol.*: C.; CS<sub>2</sub>; boil. E.; B.; oil turpent.—*Constit.*: Gutta, (C<sub>10</sub>H<sub>16</sub>)<sub>n</sub>; fluavil, C<sub>20</sub>H<sub>32</sub>O; alban, C<sub>20</sub>H<sub>32</sub>O<sub>2</sub>; guttane.—*Uses*: Techn., for dental cement; gutta-percha tissue; insulating in electrotechnic, &c.; splints for fractures & diseased joints.

do. Merck.—Solution (4)

(Traumatinein).—5% solut. gutta percha in chlorof.—*Uses*: As protective coating for wounds, abrasions, &c., instead of collodion; also used as vehicle for dermic remedies.

**Gymnema**

(Merasingi).—Lvs. of *Gymnema sylvestre*, Robt. Brown. (Aselepias geminata, Roxburgh.) Aselepiadaceae.—*Habit.*: India; Africa.—*Etymol.*: L. "Gymnema," fr. Grk. "gymnos," naked, & "nema," thread, i.e., the anthers usual in this spec. are lacking.—*Constit.*: Gymnemic acid, C<sub>32</sub>H<sub>55</sub>O<sub>12</sub>.—*Uses*: In parageusis of diabetic subjects; corrigent for bitter or sweet remedies.—Used by rolling a small quantity of the leaves in the mouth, without biting or chewing.

**Gynocardia**

(Chaulmoogra).—Seeds of *Gynocardia odorata*, Robert Brown. Bixaceae.—*Habit.*: East Indies.—*Etymol.*: Grk. "gyne," woman, & "kardia," heart, i.e., the spherical berry bears a heart-shaped hilum-residue.—*Constit.*: Fixed oil (chaulmoogra oil), containing gynocardic acid, palmitic acid, hypogaeic acid, & coccic acid.—*Uses*: Oil is believed to be a specific in leprosy; secondary syphilis; rheum.; serofula; phthisis.—*Dose*: 3-6 grains (0.2-0.36 Gm.) of powd. seeds.

**Gypsophila**

(Levant Soaproot; Spanish Soapwort; Radix Saponaria Alba).—Root of *Gypsophila Struthium*, L. Caryophyllaceae.—*Habit.*: Mediterranean region.—*Etymol.*: Grk. "gypsos," lime, or chalk, & "phyllein," to love. "Struthium,"

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



fr. Grk. "strythion," a bush.—*Constit.*: Saponin.  
—Detergent.—*Uses*: Techn., source of saponin.

*Gypsum*.—see **Calcium Sulphate**

## H

*Haarlem Oil*.—see **Oil Linseed Sulphurated, Terebinthinated**

*Hæmatoïdin*.—see **Bilirubin**

**Hæmatoxylin**.—*U. S. P.*

(Logwood).—Heart-wood of *Hæmatoxylin campechianum*, L. Leguminosæ (Caesalpinaceæ).—*Habit.*: Central America; natur. in West Indies, Jamaica, St. Domingo.—*Etymol.*: Grk. "haima," blood, & "xylon," wood, referring to the color of the heart-wood; "campechianum" refers to its habitat, Campeachy Bay.—*Constit.*: Volat. oil; hæmatoxylin,  $C_{16}H_{14}O_6 \cdot H_2O$ ; tannin; fat; resin.—*Astring.*; *Tonic*.—*Uses*: Chron. diar., dysen., & intestinal atony.—*Techn.*, as dye; also as indicator (in form of tinct. or decoct.) in volumetric analysis (alkalies = blue; acids = red). Partic. sensitive to  $NH_3$ .—*Doses*: 30–60 grains (2–4 Gm.).—*Extr.*, 8–24 grains (0.5–1.5 Gm.).

*Hugenia*.—see **Kousso**

**Hager-Gawalowski's Reagent**.—For glucose

Neutral, aqu. solut. ammonium molybdate.—Gives a blue color w. glucose at 100° C. In acid solut. the blue color is also given by dextrin & saccharose.

**Hager's Reagent**.—For glucose

Solut. 30 Gm. mercuric oxide, 30 Gm. sodium acetate & 50 Gm. sodium chloride, in 400 Cc. W. acidulated w. 25 Gm. glacial acetic acid.—In presence of glucose, the mercuric salt is reduced to mercurous chloride on heating.

*Hahnemann's Soluble Mercury*.—see **Mercury Oxide, Black, Hahnemann**

**Haine's Solution**.—For glucose

Solut. 2 Gm. copper sulphate w. 20 Gm. glycerin & 9 Gm. potass. hydroxide in 175 Gm. W.—Reduced by glucose.

**Hamamelin (Eclectic)** (13)  
Extr. fr. dried lvs. *Hamamelis virginiana*, L.—Brown powd.—*Sol.* A.—*Hemost.*; *Astring.*; *Tonic*.—*Uses*: Hemorrhoids & hemorrhages of lungs, uterus, & stomach.—*Doses*: Hemost., 5–20 grains (0.3–1.3 Gm.); tonic, 1–3 grains (0.06–0.2 Gm.).

do. **Merck**.—Scales

Brownish-red to dark brown scales.—*Sol.* W.

**Hamamelis**.—*U. S. P.*

(Witchhazel; Winter Bloom; Snapping Hazel; Striped [Spotted] Alder; Tobacco Wood; Wychhazel).—Dried lvs. & bark (also twigs) of *Hamamelis virginiana*, L. Hamamelidaceæ, collected in autumn.—*Habit.*: N. America (New England to

Minnesota southward to Louisiana).—*Etymol.*: Fr. Grk. "hama," together with, & "melon," fruit (apple), i.e., flowers & fruit together on one tree. "Virginiana," fr. Virginia, its original habitat.—*Bark*: Irreg. fragments or curved pieces  $1\frac{1}{25}-1\frac{1}{12}$  in. (1–2 Mm.) thick; extern. ash-gray, smooth, w. scattered, sm. blackish warts; inner surface sinooth; internally pale, cinnamon-brown; inodor.; astring., somewh. bitter, pungent taste.—*Lvs.*: Unequally obovate or oval, abt. 4 in. (10 Cm.) long; upper surface pale or brownish-gray; under surface light-green; odor slight; astring., sl'y arom. & bitter taste.—*Constit.*: *Leaves*: Tannin; volat. oil; bitter principle.—*Bark*: Gallie acid; hamamel-tannic acid,  $C_{14}H_{14}O_6 + 5H_2O$ ; fat; phytosterin; glucose; bitter & pungent principles; resin.—*Leaves*: Tonic; Astring.; somewh. Sedat.; used extern. in skin diseases.—*Bark*: Antisept.; Tonic; Astring.; Stypt.—*Uses*: Varicose veins, hemorrhoids, gonorr., leucorr., &c.—*Doses*: *Leaves*: 30–60 grains (2–4 Gm.) in decoct. or fld. extr.—*Bark*: Aleoh. extr., 3–10 grains (0.2–0.6 Gm.).—Fld. extr., 15–60 M (1–4 Cc.).—Tinct., 10–60 M (0.6–4 Cc.).

**Hamann's Acetic Carmine, Neutral**

Solut. 15 Gm. carmine in 100 Cc. ammonia, w. acetic acid added until solut. has a just faintly acid reaction.—*Uses*: As of o. carmine stains.

*Haplopappus*.—see **Baylahuen**

*Hare's-Ear*.—see **Bupleurum**

*Harmaline*.—see **Fuchsine**

**Harmaline**.—Cryst. (2000)  
(Harmine Dihydrate).—Fr. seeds *Peganum Harmala*, L. (Wild Rue).— $C_{13}H_{14}N_2O$ .—Trinet., octah. cryst.—*Sol.* A., E.; sl. W.—*Melt.*, abt. 238° C., w. decomp.—*Stim.*; Anthelm.; Nar.

*Hart's Tongue*.—see **Scolopendrium**

*Hart's Truffle*.—see **Elaphomyces**

"Hartshorn."—see **Ammonium Carbonate**

**Hartshorn**

(Cornu Cervi; Deer's Horn).—The horn of the stag, a species of deer, *Cervus Elaphus*. *Mammalia*. Cervidae.—*Etymol.*: Fr. Lat. "cornu," horn, & "cervus," deer. "Elaphus" fr. Grk. "elaphos," deer.—Occurs in form of raspings or turnings; white to dark-gray.—*Constit.*: Gelatin (25%); calcium phosphate (50%); calcium carbonate (15%).—*Uses*: Source of gelatin; v. rarely as addition to pectoral teas.

**Hashish**

(Hasish; Haschisch; Hasash; Kif).—Purified alc. extr. of *Cannabis indica*, Lam., *Urtica* cec., deprived of its volat. oil.—*Etymol.*: "Hashish" is the Arabian name for hemp.—*Constit.*: Tetano-cannabin. — *Uses*: Sedat.; Antispasm.; Hypnot.; also as intoxicant by smoking.—*Dose* 1 grain (0.06 Gm.), taken with powd. coffee.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Hashishin Sée-Merck**

(15

Alc. extr. of *Cannabis indica*, washed with W.—*Uses*: Dyspep. & gastric neuroses, & for prepar. "Extr. *Cannabis indicæ* pingue" (See).—5 hashishin to 95 butter.—*Dose*:  $\frac{3}{4}$  grain (0.05 Gm.) per day.

**Hazelnut.**—see **Asarum**

**Heal-All.**—see **Prunella**

**Heather.**—see **Calluna**

**Heavy Spar, Artificial.**—see **Barium Sulphate**

**Hedeoma.**—U. S. P.

(Pennyroyal; Squaw Mint).—Dried lvs. & flowering tops of *Hedeoma pulegioides*, Persoon Labiate.—*Habit.*: Canada to Florida & west to Nebraska.—*Etymol.*: Grk. "hedy," sweet, & "osme," smell, referring to the agreeable odor, & altered fr. "*Hedysimum*," the name given by Theophrastus. "*Pulegioides*," fr. Grk. "psyllon," Lat. "*pulegium*," fennel, & Grk. "oidos," like, *i.e.*, the plant resembles the European *pulegium* in appearance & odor.—*Constit.*: Volat. oil (1%); bitter prin.; tannin.—*Arom.*; Stim.; Emmen.—*Uses*: Flatul. colic & amenor.—*Dose*: Fld. extr., 15–60 ℥ (1–4 Ce.).

**Hedera Glucoside.**—see **Helixin**

**Hedge Hyssop.**—see **Gratiola**

**Hedge Mustard.**—see **Sisymbrium**

**Hedonal** (32

(Methylpropylcarbinolurethane).— $O(CH_2CH_2C_3H_7)CO.NH_2$ .—Wh. powd.—*Sol.*: A., E.; in 120 W. at 37° C., but more solub. in hot W.—*Melt.* 76° C.—*Boil.* 215° C.—Hypnotic.—*Uses*: Melancholia, mania, delirium tremens, chron. alcoholism, &c.—*Dose* 15–30 grains (1–2 Gm.).

**Heidenhain's Hematoxylin**

Aqu. 1% solut. hematoxylin.—*Uses*: Staining histological specimens.

**Heidenhain's Hematoxylin-Iron**

a., aqu. solut. ammonioferrie sulphate.—b., alc. solut. hematoxylin.—*Uses*: Staining nuclei.

**Helcosol.**—see **Bismuth Pyrogallate**

**Helenin.**—see **Inulin**

**Helenin Merck.**—White, cryst. (100

(Inula, Elecampane, or Alant, Camphor; Alantolactone; Alant-acid Anhydride).—A stearopten fr. *Inula Helenium*, L.— $C_{12}H_{20}O_2$ .—Wh. cryst.—*Sol.*: A., E., oils.—*Melt.* 64–66° C.—Antiseptic; Expector.; & Antispasm.—*Uses*: Intern., phth., diar., bronch., whoop-cough, leucor. w. endometr. & catar. affect.—*Extern.*, surg. appl. in injuries, ulc., diphth., &c.—*Appl.* 2% oily solution.—*Doses*  $\frac{1}{6}$ – $\frac{1}{3}$  grain (0.01–0.02 Gm.) 5–10 t. p. d., in pills; or better,  $\frac{1}{2}$  grains (0.1 Gm.) every 2 hrs.—See also Inulin.

**Helenium.**—see **Inula**

**Helianthemum**

(Rosewort).—Herb of *Helianthemum canadense*, Michx. Cistaceæ.—*Habit.*: U. S. (Maine to North Carolina & Kentucky, west to Wisconsin).—*Etymol.*: Grk. "helios," sun, & "anthos," flower, *i.e.*, the flowers open only in sunshine. "*Canadensis*" refers to its original habitat.—*Constit.*: Tannin; wax; fixed & volat. oils; crystalline principle.—Astring.; Tonic; Alter.—*Uses*: Scrofula, dysent. & secondary syphil.—*Extern.*, in scarlat. & prurigo.—*Dose*: Fld. extr., 30–120 ℥ (2–8 Ce.).

**Helianthine.**—see **Methyl Orange**

**Helianthine Paper.**—see **Methyl-Orange Paper**

**Helianthus**

(Sunflower).—Flowers & seeds of *Helianthus annuus*, L. Composite. Synanthérées.—*Habit.*: Cultivated everywhere.—*Etymol.*: Fr. Grk. "helios," sun, & "anthos," flower, & Lat. "annuus," yearly, *i.e.*, the plant is an annual.—*Constit.*: Flowers: Fixed oil; balsam. Seeds: Fixed oil; helianthic acid; tannin.—*Uses*: Flowers: Domestic remedy.—Seeds: Expector. & Diuret. in coughs, bronch. affect., & febrile condit.—*Techn.*, as source of sunflower-seed oil.—*Dose*: Seed: Fld. extr., 30–60 ℥ (2–4 Ce.).

**Helichrysum**

(Flores Stechados citrine; Immortelles).—Flowers of *Helichrysum (Gnaphalium) arena-rium*, D. C. Compositæ.—*Habit.*: Europe.—*Etymol.*: *Helichrysum* fr. Grk. "helios," sun, & "chrysos," gold, *i.e.*, the flowers are golden-yellow. "*Arenaria*" fr. Lat. "arena," sand, *i.e.*, the plant grows in sandy places.—*Constit.*: Volat. oil; tannin; bitter principle.—Antipodagr., & Antihidrot.—*Uses*: Renal & vesical affections & in chronic cutaneous affections.—*Techn.*, to preserve furs, &c., fr. moths.

**Helicin Merck** (100

(Glycosalicilic Aldehyde).—Fr. salicin, by oxid'n.— $C_{13}H_{16}O_7$  &  $\frac{3}{4}H_2O$ .—Wh. need.; sl'y bitter taste.—*Sol.*: W., A.—*Melt.* 170–175° C.

**Helicina Merck.**—Fr. Snails (4

(Saccharated Snail Juice).—Fr. *Helix pomatia*.—Mixt. of snail mucus & sugar (5:1).—Wh. powd.—*Sol.*: W., with turb.—*Uses*: French remedy for dis. of chest.—*Dose* 30–150 grains (2–10 Gm.).—*Caut.* Not to be confounded with Helicin, an oxidation prod. of salicin.

**Heliotropin Merck** (13

(Piperonal; Piperonyl Aldehyde; Methylene Ester of Protocatechuic Aldehyde).—Synthet. fr. piperin.— $C_9H_{10}O_3$ , or  $C_6H_5(CH_2OO)COH$ .—Wh., shin. crystals.—*Sol.*: A., E.; sl. in W.—*Melt.* 37° C.—Antisept.; Antipyret.—*Uses*: Fevers, skin dis.—*Extern.*, wash in alc. solut. in surg. practice.—*Techn.*, as perfume.—*Dose* 15 grains (1 Gm.) ev. 2 or 3 hrs.—*Caut.* Keep in cool, dark place; in hot climates, best in alc. solut.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Helixin Merck** (700)

Glucoside fr. lvs. *Hedera Helix*, L. (Ivy)  
 $C_{22}H_{40}O_{11}$  (Vernet).—Wh. powd.—*Sol.* A.; hot  
 B., hot acetone.—*Melt.* 233° C.

*Hellebore*.—see **Helleborus**

**Helleborein Merck** (200)

Glucoside fr. *Helleborus niger*, L., & *H. viridis*,  
 L.— $C_{37}H_{56}O_{18}$ .—Yellowish powd.—*Sol.* W., A.  
 —Heart Stim. & Local Anesth.—*Uses:* *Intern.*,  
 inst. of digitalis.—*Extern.*, on cornea 3 or 4  
 drops of solut. cont. in 1 drop  $\frac{1}{125}$  grain (0.0005  
 Gm.) give comp. anesth., without irrit., lasting  
 half an hour.—*Dose*  $\frac{1}{6}$ – $\frac{1}{3}$  grain (0.01–0.02 Gm.)  
 4–5 t. p. d.—Causes diarrhea.—*Antid.*, emetics,  
 stomach siphon, tannin, brandy hypoderm.,  
 extern. stimul. w. heat, mustard, &c.—*Caut.*  
 Poison!

**Helleborin Merck**

Glucoside fr. *Helleborus viridis*, L., & *H. niger*,  
 L.— $C_{36}H_{42}O_{16}$ .—Colorl. cryst.—*Sol.* A., C.; sl. in  
 E.—*Melt.*, above 250° C.—Narcotic; without  
 digitalis-like action.—*Antid.*, as of preceding.—  
*Caut.* Poison!

**Helleborus Niger**

(Hellebore; Christmas Flower or Rose; Winter  
 Rose; Black Hellebore; Black Bear's Foot).—  
 Root of *Helleborus niger*, L. Ranunculaceae.—  
*Habit.*: Europe.—*Etymol.*: Grk. "helein," to  
 take away, i.e., life, & "bora," food, i.e., some-  
 thing which, when eaten, will deprive of life.—  
*Constit.*: Volat. oil; helleborin; helleborein (glu-  
 coside); helleboretin; resin; fat.—Cardiac Tonic;  
 Cath.; Emmen.; Alter.—*Uses:* Dropsy, epi-  
 lepsy, &c., & in constip.—*Doses:* 5–20 grains  
 (0.3–1.3 Gm.).—Alcoh. extr.,  $\frac{1}{2}$ – $1\frac{1}{2}$  grains  
 (0.03–0.1 Gm.), alter.; 3–10 grains (0.2–0.6 Gm.)  
 cath. & emmen.—*Fld. extr.*, 5–10  $\frac{m}{l}$  (0.3–0.6  
 Cc.), alter.; 30–60  $\frac{m}{l}$  (2–4 Cc.), cath. & emmen.  
 —*Caut.* Poison!

**Helleborus Viridis**

(Green Hellebore; Bastard Hellebore).—Root  
 of *Helleborus Viridis*, L. Ranunculaceae.—  
*Habit.*: Europe; natur. in eastern U. S.—*Constit.*:  
 Volat. oil; helleborein; helleborin.—Cardiac  
 Tonic; Cath.; Emmen.; Alter.—*Uses:* Dropsy,  
 epilepsy, &c.; also in constip.—*Doses:* Extr.,  
 $\frac{1}{4}$ – $\frac{3}{4}$  grain (0.015–0.05 Gm.); *Mar. D.*  $1\frac{1}{2}$   
 grains (0.1 Gm.) single; 8 grains (0.5 Gm.) daily.  
 —*Fld. extr.*, 1–5  $\frac{m}{l}$  (0.06–0.3 Cc.); *Mar. D.*  
 5  $\frac{m}{l}$  (0.3 Cc.) single; 20  $\frac{m}{l}$  (1.3 Cc.) daily.—*Tinct.*  
 8–25  $\frac{m}{l}$  (0.5–1.6 Cc.).—*Caut.* Poison!

**Helminthochorton**

(Corsican Moss; Corsican Worm-weed; Worm  
 Moss; Crow-silk).—Various spec. of *Alsidium*,  
*Ceramium*, *Fucus*, *Gigartina*, *Polysiphonia*, &c.  
*Rhodophyceae*.—*Habit.*: Atlantic Ocean; Medi-  
 terranean Sea.—*Etymol.*: Fr. Grk. "helmins,"  
 worm, & "chortos," grass.—*Constit.*: Mucilage,  
 & salts.—*Uses:* Vermif.; Antiscrofular.

**Helmitol**

(12)

Hexamethylenetetramine - anhydromethylene  
 Citrate).— $C_7H_{12}O_7 \cdot (CH_2)_6N_4$ .—Colorl. cryst.—  
*Sol.* 10 W.; alm. insol. A., E.; decomp. by acids  
 & alkalis w. liberation of formaldehyde.—*Melt.*  
 165–175° C., w. decomp.—Urinary Antisept.—  
*Uses:* Cystitis, urethritis, pyelitis, &c.—*Dose*  
 10–15 grains (0.6–1 Gm.) 3–4 t. p. d.

**Helonias**

(False Unicorn; Chamælririum; Blazing Star,  
 Starwort).—Rhizome of *Chamælririum luteum*;  
 Gray. Melanthaceae, Liliaceae.—*Habit.*: On-  
 tario and eastern U. S.—*Etymol.*: Grk.  
 "heles," marsh, i.e., the plant grows in marshy  
 ground. Grk. "chamai," ground, & "leirion,"  
 lily.—*Constit.*: Chamælririn.—Tonifuge; Tonic.  
 Diuret.; large doses Emetic.—*Dose:* *Fld. extr.*  
 30–60  $\frac{m}{l}$  (2–4 Cc.).

**Helonin (Eclectic)**

(30)

Extr. fr. rhizome of *Chamælririum luteum*, Gray.  
*Sol.* A.—Diuret.; Tonic; Anthelm.—*Uses:*  
 Dropsy, dyspepsia, atony of gen.-urin. org., &  
 worms.—*Dose* 1–5 grains (0.06–0.3 Gm.) in pills.

*Hemacalcium*.—see **Mayer's Hemacalcium**

**Hemalbumin Dahmen**

(10)

Ferruginous preparation fr. blood.—Dark-brown  
 powd.; odor of cinnamon.—*Sol.*, hot W., &  
 alcoholic liquids.—Consists of hematin, hemo-  
 globin, serum albumin, & paraglobulin, together  
 w. the mineral salts of blood.—*Uses:* Chlorosis,  
 tuberculosis, & in convalesce. fr. acute, debilit.  
 dis's.—*Dose* 15–30 grains (1–2 Gm.) 3–4 t. p. d.

**Hematin**

Deriv. fr. hematoxylin.— $C_{12}H_8O_4$ .—Brown  
 powd.—*Sol.*, sl. A., E.; sl. W.—*Uses:* Micros.  
 stain.

**Hematein Merck.—Reagent**

(250)

$C_{16}H_{12}O_6$ .—Reddish-brown plates; yellowish-  
 green, metal. luster.—*Sol.* 1,670 W. at 20° C.;  
 diffic. A., E.; insol. B., C.; sol. in  $NH_4OH$  w.  
 brownish-violet color, & in dil.  $NaOH$  w. bright-  
 red color.—*Uses:* Indicator like hematoxylin.

*Note.*—For complete tests see "Chemical  
 Reagents: Their Purity & Tests," published by  
 D. Van Nostrand Co., New York. This reagent  
 conforms to the standard therein given.

**Hematein-ammonium**

$C_{16}H_{10}O_5 \cdot NH_3 + 4H_2O$  (Hesse).—Violet-black,  
 gran. powd.; aqu. solut. purple; alcoh. solut.  
 brownish-red.—*Uses:* Stain.

**Hematin Merck**

(1500)

(Oxyhematin; Hematosin).—Fr. oxyhemogl. in  
 by acids.— $C_{26}H_{24}N_4FeO_8$  Nencki.—Dark-brown  
 powd.; amm. solut. red.—*Sol.*, alkalis, hot A.

**Hematite**

(Red Ferric Oxide; Reddle; Blood-stone).—An  
 iron ore consisting of ferric oxide contaminated  
 w. lime, quartz, & clay.—*Uses:* Fechn. in powd  
 form as polishing powd. & putz-ponade, for  
 metals, &c., & as a lithographic crayon.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potas-  
 sium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sul-  
 phate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Nyoseyamine;  
 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Hematoidin.**—see **Bilirubin**

**Hematoxin.**—see **Hematin**

**Hematoxylin.**—see **Böhmer's, Delafield's, Heidenhain's, or Weigert's, Hematoxylin**

**Hematoxylin Merck.**—Pure, cryst. 40

Fr. heart-wood *Hematoxylon campechianum*, L. — $C_{16}H_{14}O_6 + H_2O$ .—Color: to yellowish-cryst.; reddn on expos. —*Sol.* A, F, borax solut., amm., G; diffc in E &  $CS_2$ ; sl W. —*Melt.* 100–120° C. —*Uses:* As a coloring agent, partic in microscopy.

**Hematoxylin Merck.**—Reagent 60

$C_{16}H_{14}O_6 + 3H_2O$ .—Color: or pale-yellow, tetrag. cryst. —*Sol.*, sl. cold W.; more sol. hot W. & solut. borax; eas. in A, & in  $NH_4OH$  (w. purple color). —*Melt.* 100–120° C. (w. loss of W.).—On expos. to light acquires red color, & then yields yellow soluts. —Used as indicator in 0.5% alcob. solut. —*Uses:* Stain in microscopy, & indicator especially in titration of alkaloids.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Hematoxylin-Alum.**—see **Böhmer's Hematoxylin-Alum**

**Hematoxylin-Alum-Calcium.**—see **Mayer's Hemacalcium**

**Hematoxylin-Alum-Glycerin.**—see **Friedländer's Hematoxylin-Alum-Glycerin**

**Hematoxylin-Eosine.**—see **Renaut's Hematoxylin-Eosine**

**Hematoxylin-Glycerin.**—see **Ehrlich's, or Renaut's, Hematoxylin Glycerin**

**Hematoxylin-Iron.**—see **Heidenhain's Hematoxylin-Iron**

**Hematoxylin Paper**

Unsize, wh. paper, free fr. lime & charged w. hematoxylin. —*Uses:* Delicate indicator for ammonia, alkal., alkal. earths, & certain metals (alkalies=blue; acids=red). —*Caution.* Keep well sealed, in amber bots.

**Hematoxylin-Potassium Iodide.**—see **Cuccati's Hematoxylin-Potassium Iodide**

**Hematoxylin-Safranine.**—see **Rabl's Hematoxylin-Safranine**

**Hemialbumose Merck** 100

Product occupying a place midway between albumen & peptone, & obtained, according to Kühne, by digesting albumen w. pepsin, & then continuing the digestion until the product is converted into hemipeptone. —Yellowish powd. —*Sol.*, dil. acids & alkalies.

**Hemlock.**—see **Conium**

**Hemlock, Water.**—see **Cicuta**

**Hemo-gallol** 113

Hemoglobin Deoxidized by Pyrogallol, Merck.  
—Fr. hemoglobin (the coloring matter of defibrinated blood) by reduct. w. pyrogallol (Discovered by Kobert). —Reddish-brown powd. cont'g iron in condit. for easy assimil. —Hematinic, Constructive, Tonic. —*Uses:* Anemia, chlorosis, debility, & in convalesc.; readily transformed into blood-coloring matter by debilit. people, & generally well borne; particularly suitable for children; much superior to inorg. prep. of iron. —*Dose:* 4–8 grains (0.25–0.5 Gm.) 3 t. p. d., 1/2 hour before meals in powd. w. sugar, or in wafers, pills, or tablets. For children, 1–3 grains (0.06–0.2 Gm.), acc. to age.

**do. Merck.**—Tablets

Tablets each cont. 4 grains (0.25 Gm.) hemo-gallol. —*Dose:* 2 tabl. 3 t. p. d., 1/2 hr. bef. meals.

**Hemoglobin Merck.**—Powder 20

Red coloring matter of blood. —Brownish-red powd. —*Sol.* W. —Hematinic; readily absorbable. —Constructive, Tonic. —*Uses:* Anemia, chlorosis, &c. —*Dose:* 75–150 grains (abt. 5–10 Gm.) daily in wine or syrup.

**do. Merck.**—Scales 20

Dark-brown, lustrous, odorl. scales. —*Sol.* W. —Hematinic, &c. —*Uses & Dose:* As of preceding.

**Hemol** 16

(Hemoglobin Deoxidized by Zinc, Merck). —Fr. hemoglobin by reduct. w. zinc-dust. —Dark-brown powd. cont'g easily assimil. iron. —*Sol.*, partly in W. —Hematinic. —*Uses:* One of best remed. in anemia & chlorosis; of great utility in treatm. of debilitated; readily absorbable. —*Dose:* 2–8 grains (0.12–0.5 Gm.) 3 t. p. d. before meals, in powd., w. sugar or in wafers.

**Hemol (Arsen-) Merck** 16

Hemol w. 1% arsenic trioxide organically combined. —Brown powd. —Alter. & Hematinic. —Efficient remedy in skin diseases, anemia, chlorosis, & neuroses; no untoward action on stomach. —*Dose:* 1 1/2 grains (0.1 Gm.) 2–3 t. p. d. in pills, increasing the dose by 1 pill every 4 days, until 10 pills are taken daily.

**Hemol (Bromo-) Merck** 16

Hemol w. 2.7% bromine organically combined. —Brown powd. —Antiepileptic; specially useful in debility. —*Dose:* 15 grains (1 Gm.) 3 t. p. d.

**Hemol (Cupro-) Merck** 20

Hemol w. 2% of copper organically combined. —Dark chocolate powd. —Readily absorbable, mildly acting substitute for older copper compounds in tuberc., scrof., syph., ecz., anemia, chlorosis, &c. —*Dose:* 1 1/2 grains (0.1 Gm.) 3 t. p. d. —*Max. D.* 8 grains (0.5 Gm.) 3 t. p. d.

**Hemol (Iodo-) Merck** 25

Hemol w. 16% iodine organically combined. —Brown powd. —Develops the iodine effect in

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



highest degree.—*Uses*: Tertiary syphilis, chron. lead poison., scrof., asthma, psoriasis, &c.—*Dose* 3–5 grains (0.2–0.3 Gm.) in pills, 3 t. p. d.

### Hemol (Mercurio-iodo-) Merck (30)

Hemol w. 12.35% mercury & 28.60% iodine organ. combined.—Brown powd.—Antisyph.; Tonic.—*Uses*: Chiefly in syphilis, particularly when accompanied by scrofula or anemic conditions. Develops fully the mercurial effect without the unpleasant by-effects ordinarily exerted by mercury.—*Dose* 2–5 grains (0.12–0.3 Gm.) 3 t. p. d., in pills.—*Subcut.*, a mixture containing 6–10% of the remedy suspended in a 1–2% gelatin solut. w. 0.6% sod. chloride added, the mixt. being warmed bef. injecting.

### Hemol (Zinc-) Merck (20)

Hemol w. 1% zinc organically combined.—Dark-brown powd.—*Sol.*, partly in W.—Hematinic & Constructive; mild zinc preparation, deserving of preference above all other zinc salts intended to be absorbed.—*Uses*: Anemia, chlorosis, & gastric or intest. erosions.—*Dose* 8 grains (0.5 Gm.) 3 t. p. d.

*Hemp, Canadian.*—see **Apocynum**

*Hemp Nettle.*—see **Galeopsis**

*Hempseed.*—see **Cannabis Seed**

*Henbane.*—see **Hyoscyamus**

### Henna

(Egyptian Privet; Flower-of-Paradise).—Lvs. of *Lawsonia alba*, Lamarek. Lythraceæ.—*Habit.*: Orient; Mediterranean region; southern Asia; Australia.—*Etymol.*: Fr. Arabic "al-hen-nah," by which term the coloring matter is designated.—*Constit.*: Tannin; coloring matter.—Diuret.; Astring.—*Uses*: Jaundice & skin diseases.—*Extern.*, as an "Oriental cosmetic" for dyeing the finger nails, hands, feet, & hair.—*Techn.*, in combination w. indigo, as hair dye.

### Henneguy's Acetic Alum Carmine

Boil 2–3 Gm. carmine w. 100 Cc. 15% aqu. solut. potass. alum, & when cold, add 10 Cc. acetic acid.—*Uses*: Staining tissues & cell nuclei.

*Hepar Antimony.*—see **Potassium & Antimony, Sulphurated; Sodium & Antimony, Sulphurated**

*Hepar Calcis.*—see **Lime Sulphurated**

*Hepar Sulphuris.*—see **Potassa Sulphurated**

### Hepatica

(Liverwort; Liverleaf; Noble Liverwort; Kidney Liverleaf).—Whole plant *Hepatica Hepatica* (triloba), Karst. Ranunculaceæ.—*Habit.*: Europe.—*Etymol.*: Lat. "hepar," liver, referring to the shape of the lvs.—*Constit.*: Tannin; oleo-resin.—Tonic; Astring.—*Uses*: Supposed to be of benefit in hepatic affect.—*Dose*: Fld. extr., 30–60 ℥ (2–4 Cc.).

*Heptanal.*—see **Oenanthal**

### Heptane Merck (10)

(Heptyl Hydride; Methyl Hexane; Normal Heptane; Dipropylmethane).—Hydrocarbon of petroleum.— $C_7H_{16}$ , or,  $CH_3(CH_2)_5CH_3$ .—Volat., colorl. liq.—*Sp. Gr.* 0.684 at 20° C.—*Sol.* A., E., C.—*Boil.* 95–100° C.—Anesth.; Solvent.

*Heptoic Aldehyde.*—see **Oenanthal**

*Heptyl Hydride.*—see **Heptane**

*Herapathite.*—see **Quinine Iodosulphate**

*Herb Robert.*—see **Geranium Robertianum**

### Herniaria

(Rupturewort).—Whole plant *Herniaria glabra*, L. Caryophyllaceæ.—*Habit.*: Europe.—*Etymol.*: Lat. "hernia," rupture, referring to the medicinal uses of the plant. "Glabra," fr. Lat. "glaber," smooth, hairless.—*Constit.*: Herniarin (methyl-umbelliferone),  $C_{10}H_8O_2$ ; paronychine; saponin; tannin.—*Uses*: Diuret. in nephritis & nephrolithiasis, & in vesical catarrh.—*Extern.*, in snake bites.

### Heroin (100)

(Diacetylmorphine). —  $C_{17}H_{17}(C_2H_3O)_2NO_3$ .—Wh., cryst., odorl., bitter powd.—*Sol.*, in acidul. liquids, hot A., C., B.; diffie. E.; insol. cold W. & oils.—*Melt.* 171° C.—Cough-sedative; Antispasmodic.—*Uses*: Phthisis, bronchitis; asthma, &c.—*Dose*  $\frac{1}{12}$ – $\frac{1}{6}$  grain (0.005–0.01 Gm.).

### Heroin Hydrochloride (100)

(Diacetylmorphine Hydrochloride). —  $C_{17}H_{17}(C_2H_3O)_2NO_3 \cdot HCl$ .—Wh., bitter powd.—*Sol.* A., 2 W.—*Melt.* 230–231° C.—Cough-sedative; Antispasmodic.—*Uses*: Phthisis, bronchitis, asthma, &c.—*Dose*  $\frac{1}{12}$ – $\frac{1}{6}$  grain (0.005–0.01 Gm.).

### Hertwig's Osmic-Acetic Acid

0.05 Gm. osmic acid, 0.2 Gm. acetic acid, & 200 Cc. W.—*Uses*: Macerating liquid.

*Herzberg's Paper.*—see **Congo Red Paper**

### Hesperetin Merck (750)

(Not Hesperidin).—Decomp. product obt. by heating hesperidin w. dil.  $H_2SO_4$  to 120° C.— $C_{16}H_{14}O_6$ , or,  $C_6H_3(OCH_3)(OH).CH:CH.CO_2-C_6H_5(OH)_2$ .—Yellow cryst.—*Sol.* A., E.; sl. W.—*Melt.* 220° C., w. decomp.

### Hesperidin Merck (125)

(Not Hesperetin).—Glucoside fr. unripe fruit, *Citrus vulgaris*, Risso (Bitter orange).— $C_{50}H_{66}O_{27}$ .—Yellow powd.—*Sol.*, dil. alkalis; hot acetic acid.—*Melt.* 251° C., w. decomp.

### Hetokresol (35)

(Cinnamylmetaeresol).—Wh., cryst. powd.—*Sol.* E.; insol. W.—*Melt.* 65° C.—*Uses*: *Extern.*, in treatment of osseous, articular, urogenital, & glandular, tuberculosis.—*Appl.*, in vesical irrigations in 1–5% suspensions; as wash for fistulas, hetokresol-iodoform (1–2:8) & hetol-iodokresol-ether (1–2:7); sores, &c., washes of hetol-ether (1:10–20).

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Hetol* = Sodium Cinnamate.—see Sodium Cinnamate

**Hetol-Caffeine**

(Caffeine-Sodium Cinnamate).—Amorph., odorl., bitter, alkaline powd.—*Sol.* 2 W., 50 A.—*Uses:* Instead of caffeine & sodium salicylate as diuret.

**Hetralin**

(Resorcinol-Hexamethylenamine).— $C_{12}H_{16}O_2N_6$ .—*Wh.*, cryst. need.—*Sol.* 4 A., 4 hot W., 14 cold W.—Decomp. above  $160^{\circ}C$ .—*Diur.*—*Uses:* Gonorr., cystitis.—*Dose* 15-25 grains (1-1.6 Gm.) p. d.

*Hexachlorethane*.—see Carbon Trichloride

*Hexachlorobenzene* (or -zol).—see Benzene, Perchloro-

*Hexahydropyridine*.—see Piperidine

*Hexahydrothymol*.—see Menthol

**Hexamethylenamine** (3)

(Formin [a particularly pure grade]; Hexamethylenetetramine; Aminoform; Urotropin; Cystamin; Cystogen).— $(CH_2)_6N_4$ .—*Wh.*, cryst. powd.—*Sol.* W.; dif. A.; alm. insol. E.—Sublimable.—Uratolytic & Genito-Urinary Antisept.; Diuret.—*Uses:* Uric-acid diathesis, cystitis, gout, bacterial urin. dis's; prevents developm. of typhoid, cystitis, & destroys infectiousness of typhoid urine.—*Dose* 8-25 grains (0.5-1.5 Gm.) w. much W.

*Hexamethylenamincanhydromethylene* Citrate.  
—see Helmitol

*Hexamethylenamine Bromethylate*.—see Bromalin

*Hexamethylenamine - Lithium Benzoate*.—see Urystamine

*Hexamethylenamine Oxymethylsulphonate*.—see Thial

*Hexamethylenamine Salicylate*.—see Saliformin

*Hexamethylenaminctannin*.—see Tannopine

*Hexamethylenetetramine*.—see Formin; Hexamethylenamine

**Hexane Merck** (8)

(Hexyl Hydride; Caproyl Hydride; Normal Hexane).—Principal constituent of petroleum ether, or ligroin.— $C_6H_{14}$ .—Colorl., volat. liq.; faint, pecul. odor.—*Sp. Gr.* 0.658 at  $20^{\circ}C$ .—*Sol.* A., E., C.—*Boil.*  $65-70^{\circ}C$ .

*Hexaoxyanthraquinone*.—see Acid Rufigallic

*Hexoic-Acid Nitrile*.—see Amyl Cyanide

*Hexyl Hydride*.—see Hexane

**Hexyl Iodide Merck**.—Fr. Mannit (160)

(Secondary Normal Hexyl Iodide).—Fr. mannit & HI.— $C_6H_{13}I$ , or  $CH_3(CH_2)_5CHI_2$ .—Colorl. liq.—*Sp. Gr.* 1.453 at  $0^{\circ}C$ .—*Boil.*  $168^{\circ}C$ .

*Hexylene glycol*.—see Pinacone

**Hide Powder Merck. Reagent. For Tannin Determination** (15)

Wh., or yellowish-wh., woolly powd. fr. best quality of hide debaired w. lime, & thoroughly washed.—Should have but sl. odor, & be free espec. fr. odors of decomp. prod.—*Tests:* (Const. *Solub.* in  $H_2O$ ) place 5 Gm. in a Procter bell-filter, & suspend in a 200 Ce. beaker; fix siphon in clamp so that bell-filter is near bottom of beaker; moisten hide powd. w. sm. quant.  $H_2O$  (requires abt. 1 hr.); fill beaker & apply suction to siphon till filtrate begins to drop slowly. 90-100 Ce. filtrate requires abt.  $1\frac{1}{2}$  hrs. Reject first 30 Ce. filtrate; next 50 Ce. evap. to dryness on W.-bath; dry res. in air-bath at  $100-105^{\circ}C$ . to const. wt.—wt. not to exceed 0.005 Gm.

*Note*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Hippocastanum Bark.**—see *Æsculus Hippocastanum*

**Hippol** (30)

(Methylenehippuric Acid).— $C_8H_7CO.N(CH_2)_2COO$ .—Not a true acid.—Colorl. cryst.; odorl. & tastel.—*Sol.*, eas. C.; hot B, A., & acetic ether; 460 W. at  $23^{\circ}C$ .—*Melt.*  $151^{\circ}C$ .—Urinary Antisept.—*Uses:* Bacterial diseases of urinary organs.—*Dose* 25 grains (1.6 Gm.) sev. t. p. d.

**Hips**

(Dog Rose; Wild Briar; Cynosbata).—Recent ripe fruit of *Rosa Canina*, L. Rosaceæ.—*Habit.*: Europe; cult. in U. S.—*Etymol.*: "Rosa," fr. Grk. "rhodon," fr. Celtic "rhos," red, & "Canina," fr. Lat. "canis," dog. "Cynosbata," fr. Grk. "kyon," dog, & "batos," briar or bramble, i.e., the fruit was credited with strong antihydophobic properties. —Ovoid, smooth, shining, hollowed thalamus, bearing a number of achenes on its inner surface; scarlet or red color; inod.; pleasant, sweetish, acidulous taste.—*Constit.*: Tannin; vanillin; coloring matter.—*Uses:* As conserve, & pill excipient.

**Hirudin** (11000)

Principle prevent. blood coagulation, & obt. fr. the heads of leeches by physiological salt solut. —Brownish, dry scales or bulky masses.—*Sol.*, v. eas. W.; insol. A., E.—*Uses:* To prevent blood coagulation in gynecology, &c.,  $\frac{1}{60}$  grain (0.001 Gm.) suffices to permanently prevent 2 dr. (7.5 Ce.) of blood fr. coagulating, & without changing its character.—For use a solut. in dist. W. or in physiol. salt solut.  $\frac{1}{6}$  grain (0.01 Gm.) to 30 ml (2 Ce.) is prepared.

**Histosan** (26)

Guaiacol-albumin comp.—Light-brown powd.—*Sol.*, alk. intest. liquids; insol. gastric fluid.—Antitubercular.—*Uses:* As of guaiacol.—*Doses:* Adults, 8 grains (0.5 Gm.); children, 4 grains (0.25 Gm.) 3 t. p. d.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Hoffmann's Anodyne*.—see **Spirit Ether Compound**

**Hofmann's Violet Merck** (8

(Dahlia Violet; Triethylosaniline Hydrochloride).—Green lumps.—*Sol.* W.—*Uses*: To dye wool bluish-red. Also for inks & stain. In alcohol solut. acidulated w. acetic acid as stain for cylinders of nerve fibers, & as test paper (see Dahlia Paper).

*Hog-Gall*.—see **Gall, Hog-**

**Holarrhena**

(Conessi; Tellicherry; Indageer).—Seeds of *Holarrhena antisynterica*, Walt. Apocynaceæ.—*Habit.*: India.—*Etymol.*: Grk. "holos," whole, & "arrhen," male, referring to the free anthers.—*Constit.*: Conessine (wrightine),  $C_{24}H_{40}N_2$ .—*Uses*: Antidysenteric; Febrif.—*Dose* 2-5 grains (0.12-0.3 Gm.) in powd., or 15-60 m (1-4 Ce.) of 1:5 tinct.

*Holly, European*.—see **Ilex**

*Hollyhock*.—see **Althæa Rosea**

**Holocaine Hydrochloride** (140

(Amidin; Paradiethoxyethenyl-diphenylamine Hydrochloride).— $C_{16}H_{19}O_2C_6H_4.N.C(CH_3)_2NH.C_6H_4.OC_2H_5.HCl$ .—Colorl. cryst.—*Sol.* 50 W.; A.—*Uses*: Local anesth. in ophthalm. Instillation of 2-5 drops of 1% solut. causes prolonged anesthesia in 10 minutes.

**Homatropine Merck**.—Alkaloid, pure (3420

(Oxytoluotropine; Oxytoluylatropine).—By evap. mixt. tropine & mandelic acid w. dil. hydrochl. acid.— $C_{16}H_{21}NO_3$ .—Wh. cryst.—*Sol.* A., E., C.; sl. in W.—*Melt.* 98-99° C.—*Sedat.*; Antispasmodic; Anod.; Antihidrotic.—*Uses*: As of atropine, but less toxic. Salts are exceed. useful in ophthalmology; dilate pupil powerfully; effect subsides quicker than w. atropine; hydrobromide us'y used.—*Dose*  $\frac{1}{120}$ - $\frac{1}{60}$  grain (0.0005-0.001 Gm.) several t. p. d.—*Antid.*, emetics & stomach tube; tannin & animal charcoal; again give emetics, then castor oil; artificial respir., heat, stim., &c.—*Caut.* Keep well stoppered.

**Homatropine Hydrobromide Merck** (2565

$C_{16}H_{21}NO_3.HBr$ .—Sm., wh. cryst.—*Sol.* 10 W., 33 A.; 5.7 W., 32.5 A., & 620 C. at 25° C. (U. S. P.); insol. E.—*Melt.* 210-212° C., when quickly heated (213.8° C., U. S. P.).—*Uses*: Mydriatic in ophthalm. surg.; in night sw. of phth., & as sedative. Mydr. effect commences in  $\frac{1}{4}$  to  $\frac{1}{2}$  hour, reaches maximum in 1 hour, & disappears in 6 hours. Accommod. paresis ceases earlier.—*Dose*  $\frac{1}{120}$ - $\frac{1}{60}$  grain (0.0005-0.001 Gm.).—*Appl.*, to the eye, in a 1% solution.—*Max. D.*  $\frac{1}{60}$  grain (0.001 Gm.) single;  $\frac{1}{20}$  grain (0.003 Gm.) p. d.—*Antid.*, as of homatropine.

*Note*.—This salt is rendered perfectly pure by repeated recrystallization, thus making it a perfectly safe, reliable, & prompt mydriatic.

**Homatropine Hydrochloride Merck** (3135

$C_{16}H_{21}NO_3.HCl$ .—Sm., wh. cryst.—*Sol.* W., A.—*Melt.* 216-217° C.

**Homatropine Methylbromide Merck**

Wh. cryst.—*Sol.*, eas. W. & dil. A.; diffic. cold absol. A. & E.—*Melt.* 180-181° C.

**Homatropine Salicylate Merck** (3135

$C_{16}H_{21}NO_3.C_7H_5O_3$ .—Wh. cryst.—*Sol.* W., A.

**Homatropine Sulphate Merck** (3135

$(C_{16}H_{21}NO_3)_2.H_2SO_4$ .—Wh. cryst.—*Sol.* W., A.

**Homoarecoline Merck** (1000

(Arecaidinethyl-ester).— $C_7H_{10}(C_2H_5)NO_2$ .—Colorl. liq.—*Sol.* W., A., E., & C.—Possesses action like that of arecoline, but is less toxic.

**Homoarecoline Hydrobromide Merck** (750

$C_9H_{15}NO_2.HBr$ .—Colorl. cryst.—*Sol.* W. & A.—*Melt.* 118-119° C.

*Homocresol* = *Guaiacol-ethyl*.—see **Guaethol**

*Homoguaiacol*.—see **Creosol**

*Homopyrocatecholmonomethyl Ester*.—see **Creosol**

*Honey Sugar*.—see **Dextrose**

*Hop-hornbeam*.—see **Ostrya**

*Hop Tree*.—see **Ptelea**

*Hops*.—see **Humulus**

*Horehound*.—see **Marrubium**

*Horn Poppy*.—see **Glaucium**

*Horsechestnut, American*.—see **Æsculus Glabra**

*Horsechestnut Bark*.—see **Æsculus Hippocastanum**

*Horsemint*.—see **Monarda**

*Horse Nettle*.—see **Solanum Carolinense**

*Horseradish*.—see **Armoracia**

*Horsetail*.—see **Equisetum**

*Hound's Tongue*.—see **Cynoglossum**

**Hoyer's Ammonium Carminate**.—Dry, & Solution

Solut. is made fr. 2 Gm. carmine, & 100 Ce. ammoniacal water, with addition of hydrated chloral.—On adding alcohol to the solut., a ppt. forms which, when dried, affords the *Dry* preparation.—*Uses*: Staining nuclei, axis cylinders, & nerve cells.

**Hoyer's Chloral-Acacia**

Solut. acacia & hydrated chloral in W. & G.—*Uses*: For examining & preserving specimens.

**Huber's Reagent**.—For free mineral acids

Aqu. solut. ammonium molybdate & potass. ferrocyanide.—Free mineral acids (boric acid & arsenic trioxide excepted) afford a reddish-brown ppt. or turbidity w. the reagent.

*Huckleberry, European*.—see **Vaccinium**

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



### Huckleberry Paper

Wh. paper charred by a hydro-alcol. extract of huckleberry. Indicator for ammonia & fixed alkalies (greenish-blue, & acids red color).

### Huebl's Solution

25 pts. of water & 30 pts. of mercuric chloride in 1,000 pts. of absolute alc. Titer must be verified before or after use, as it changes with time.—*Uses*: Detects iodine No. of fats & oils.

### Humulus.—U. S. P.

(Hop).—Carefully dried strobiles of *Humulus lupulus*, L. Moraceæ, bearing their natural glandular trichomes.—*Habit.*: Europe; Asia; North America cultivated widely.—*Etymol.*: Fr. Anglo-Saxon "hoppan," to climb. "Humulus" fr. Lat. "humus," ground, i. e., the plant creeps on the ground unless supported. "Lupulus," a contraction of "Lupus salictarius" (Pliny), i. e., wolf of the willows; or, diminutive of "lupus," i. e., little wolf, because it strangles shrubbery around which it climbs.—*Constit.*: Volat. oil; asparagin; choline; hop-bitter acid; hop-resin; tannin.—*Antispasmodic*; Tonic; Diuretic; Sedative; Anodyne; Hypnotic; Carminative; Diaphoretic.—*Uses*: Insomnia, dyspepsia, irrit. bladder & inflammation of genito-urinary organs, gen. debility, nervous tremor.—*Techn.*: in beer brewing.—*Doses*: 30 to 60 grains (2-4 Gm.).—Alcoh. extr., 2-5 grains (0.12-0.3 Gm.).—Aq. extr., 4-10 grains (0.25-0.6 Gm.).—Fld. extr., 30-60 m (2-4 Cc.).—Tinct., 1-3 fl. dr. (1-12 Cc.).

### Hyænanche

Fruit (seed) of *Hyænanche globosa*, Lamb. (Toxicodendron capense, Thunb.). Buxacæ.—*Habit.*: The Cape (South Africa).—*Etymol.*: Fr. Grk. "hyaina," hyena, & "anchein," to strangle, to choke, or destroy.—*Constit.*: Hyænanchin (bitter principle).—*Uses*: Cerebral tonic.

*Hydractin.*—see *Acetylphenylhydrazine*

### Hydrangea

(Seven Barks).—Root of *Hydrangea arborescens*, L. Saxifragaceæ.—*Habit.*: Eastern U. S.—*Etymol.*: Grk. "hydor," water, & "aggeion," vessel, alluding to the shape of the capsule.—*Constit.*: Hydrangin (glucoside),  $C_{31}H_{25}O_{11}$ ; sugar; saponin; resins; fixed & volat. oils; starch.—Diuretic & Antilitic.—*Uses*: Dropsy, lithiasis, & dis. of genito-urinary organs.—*Dose*: Fld. extr., 30-60 m (2-4 Cc.).

### Hydrargyrol

Mercury Paraphenolsulphonate).—( $C_6H_4.OH.SO_3Na$ ).—Obt. by action of phenolsulphonie acid on freshly precipit. mercuric iodide.—Brownish-red scales.—Sol. W., G.; insol. absol. A.—Antiseptic.—*Uses*: Inst. of corrosive sublim.

### Hydrastin (Resinoid)

(85

Resinous extr. fr. rhizome & roots *Hydrastis canadensis*, L.—Sol. A.—Antiseptic; Alterative; Astringent; Tonic; Emmenagogue.—*Uses*: Gonorrhoea, leucorrhoea,

constipation, amenorrhoea, catarrh, uterine hemorrhage, piles, &c.—*Dose*: 5-10 grains (0.33-0.6 Gm.).

### Hydrastine Merck. — Alkaloid. — Highest Purity (250

Alkaloid fr. root of *Hydrastis canadensis*, L.— $C_{21}H_{21}NO_6$ .—White prisms.—Sol. A., E., C., B.; sl. in W.—*Melt.* 132° C.—Alterative; Tonic; Antiperistaltic.—*Uses*: Gonorrhoea, leucorrhoea, constipation, & uterine hemorrhages.—*Dose*:  $\frac{1}{4}$  -  $\frac{1}{2}$  grain (0.015-0.03 Gm.).—*Mar. D.*:  $\frac{1}{4}$  grains (0.1 Gm.) single; 5 grains (0.3 Gm.) p. d.

### Hydrastine Bitartrate Merck. — Cryst. (250

$C_{21}H_{21}NO_6 \cdot C_4H_4O_6 \cdot 4H_2O$ .—Small, white, crystalline needles.—Sol. in hot W.

### Hydrastine Hydrochloride Merck. — Highest Purity (250

$C_{21}H_{21}NO_6 \cdot HCl + aq.$ —Amorphous, wh. powder.—Sol. W.—Astringent; Alterative; Tonic; Hemostatic.—*Uses*: Internally, uterine hemorrhage, dyspepsia, piles, &c.—Externally, gonorrhoea, conjunctivitis, endometritis, leucorrhoea, cervical erosions, acne, hyperidrosis, seborrhoea, &c.—*Dose*:  $\frac{1}{2}$  - 1 grain (0.03-0.06 Gm.) ev. 2 hrs. if necessary.—*Appl.*: as astringent, 0.1-0.5% solution; in skin diseases, 1% ointment or lotions.

### Hydrastine Sulphate Merck (250

$(C_{21}H_{21}NO_6)_2 \cdot H_2SO_4 + aq.$ —Yellowish-white, amorphous powder.—Sol. W.—*Uses*: As of hydrastine hydrochloride.

### Hydrastinine Hydrochloride Merck (1040

$C_{21}H_{21}NO_6 \cdot HCl + H_2O$ .—Yellow, crystalline powder.—Sol. in 1 W.; 3 A.; alm. insol. in E. & C.—*Melt.* 210° C.—Uterine Hemostatic; Emmenagogue; Vasoconstrictor.—*Uses*: Hemorrhages, congestive dysmenorrhoea, metrorrhagia, epilepsy, hemoptysis, &c.—*Dose*:  $\frac{1}{4}$  -  $\frac{1}{2}$  grain (0.015-0.03 Gm.) 3-4 t. p. d., in capsules.—*Mar. D.*: 2 grains (0.12 Gm.) p. day.—*Inf.*: 8-15 m (0.5-1 Cc.) of 10% aq. solut.

*Hydrastinine, Oxy.*—see *Oxyhydrastinine*

### Hydrastis.—U. S. P.

(Golden Seal; Orange Root; Yellow Root; Yellow Puccoon; Turmeric Root; Indian Turmeric).—Dried rhizome & roots of *Hydrastis canadensis*, L. Ranunculaceæ.—*Habit.*: N. America.—*Etymol.*: Grk. "hydor," water, & "aste," native of, i. e., referring to its growing in moist places; or, "hydor," & "drao," to act, referring to the active properties of the drug.—*Constit.*: Hydrastine; berberine; canadine,  $C_{20}H_{23}NO_4$ .—Hemostatic (in uterine hemorrhages); Bitter Tonic; Antiperistaltic; Alterative; Antiseptic; Cholagogue; Diuretic; Astringent.—*Uses*: Jaundice, leucorrhoea, piles, gonorrhoea, spinal irrit., night-sweats, & intern. hemorrhage, catarrh, dyspepsia, constipation.—*Doses*: 5-60 grains (0.3-4 Gm.).—Fld. extr., 10-60 m (0.6-4 Cc.).—Hydro-alcoh. extr., 3-10 grains (0.2-0.6 Gm.).—Tinct., 20-60 m (1.3-4 Cc.).

### Hydrazine Sulphate Merck (80

(80

(Diamidogen, or Diamine, Sulphate).—By heat, triazooacetic acid w. sulphuric acid.— $N_2H_4 \cdot H_2SO_4$ ,

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



or,  $\text{NH}_2\text{NH}_2\text{H}_2\text{SO}_4$ .—Wh. cryst.—*Sol.*, hot W.  
—*Antisep.*—*Uses*: Destroy fungi, mold, & bacteria.—*Techn.*, in chem. analysis for determining & separating copper accord. to Jannasch & Biedermann.

### Hydrazobenzene Merck (50)

(Hydrazobenzol).—By reduc. azobenzene w. amm. sulphide.— $\text{C}_{12}\text{H}_{12}\text{N}_2$ , or,  $\text{C}_6\text{H}_5\text{NH.NH.C}_6\text{H}_5$ .—Colorl. tablets; camphor. odor.—*Sol.* A.; sl. W.—*Melt.* 133° C.

### Hydrobenzamide Merck (25)

(Tribenzylidenediamine).—Fr. benzoic aldehyde, by  $\text{NH}_4\text{OH}$ .— $\text{C}_{21}\text{H}_{18}\text{N}_2$ , or,  $(\text{C}_6\text{H}_5\text{CH})_3\text{N}_2$ .—Colorl. cryst.; flb. sweet taste.—*Sol.* A., E.; insol. W.—*Melt.* 110° C.

### Hydroberberine Merck (2000)

Fr. berberine, by reduct. w. nascent hydrogen.— $\text{C}_{20}\text{H}_{21}\text{NO}_4$ .—Yellow cryst.; reconverted to berberine by  $\text{HNO}_3$ .—*Sol.* A., C.,  $\text{CS}_2$ ; insol. W.

*Hydrobilirubin.*—see **Urobilin**

*Hydrochinone.*—see **Hydroquinone**

### Hydrocotarnine Merck (20000)

Alkaloid fr. opium in v. sm. quant.— $\text{C}_{12}\text{H}_{15}\text{NO}_3 + \frac{1}{2}\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* A., E., C., alkalies.—*Melt.* 55° C.—More poisonous than morphine.

### Hydrocotoin Merck (90)

(Benzoecotoin; Benzoylphloroglucindimethyl-ester).—Fr. para-coto bark.— $\text{C}_{15}\text{H}_{14}\text{O}_4$ , or,  $\text{OH.C}_6\text{H}_4(\text{CO.C}_6\text{H}_5).(\text{OCH}_3)_2$ .—Yellow need.—*Sol.* A., E., C.—*Melt.* 98° C.

### Hydrocotyle

(Water Pennywort; Thiek-leaved Pennywort; Indian Pennywort; Bevilacqua).—Whole plant *Hydrocotyle asiatica*, L. Umbelliferae.—*Habit.*: Southern Asia.—*Etymol.*: Grk. "hydor," water, & "kotyle," cup, referring to the cup-shaped lvs. which grow in water.—*Constit.*: Volat. oil; vellarin.—*Diuret.*; Alter. (in leprosy, elephantiasis, & skin diseases); Tonic.—*Uses*: Scrofula, syphilis, &c.—*Doses*: Alcoh. extr., 3-10 grains (0.2-0.6 Gm.).—Fld. extr., 15-40  $\text{ml}$  (1-2.5 Ce.).

*Hydrogen Ammonium Camphorate.*—see **Ammonium Camphorate**

*Hydrogen Ammonium Fluoride.*—see **Ammonium Bifluoride**

*Hydrogen Ammonium Oxalate.*—see **Ammonium Binoxalate**

*Hydrogen Ammonium Sulphate.*—see **Ammonium Bisulphate**

*Hydrogen Ammonium Sulphide.*—see **Ammonium Sulphydrate**

*Hydrogen Bromide.*—see **Acid Hydrobromic**

*Hydrogen Carboxylic Acid.*—see **Acid Formic**

*Hydrogen Chloride.*—see **Acid Hydrochloric**

*Hydrogen Cyanide.*—see **Acid Hydrocyanic**

*Hydrogen Diammonium Phosphate.*—see **Ammonium Phosphate, Dibasic**

*Hydrogen Dioxide.*—see **Hydrogen Peroxide**

*Hydrogen Ferrocyanide.*—see **Acid Ferrohydrocyanic**

*Hydrogen Fluoride.*—see **Acid Hydrofluoric**

*Hydrogen Iodide.*—see **Acid Hydriodic**

*Hydrogen Nitrate.*—see **Acid Nitric**

### Hydrogen Peroxide Merck.—Highest Purity.— Abt. 30% $\text{H}_2\text{O}_2$ by weight (16)

(Perhydrol).—Abt. 30% by wt. (or 100% by vol.)  $\text{H}_2\text{O}_2$ .—Absolutely chem. pure solut.  $\text{H}_2\text{O}_2$ .—Sp. Gr. 1.111 at 15° C.—Preferable to the 3%  $\text{H}_2\text{O}_2$  for medicinal purposes.—*Misc.*, all proport. w. W. or A.—*Disinfect.*; *Antisep.*; *Deod.*; *Styptic*; *Antizym.*—*Uses*: Chiefly extern., in dipth., sore throat, wounds, gonorr., abscesses, &c.—*Intern.*, in flatulence, gastric affect., phthical sweats, &c.—*Hypoderm.* (0.2% solut.), in cyanide poisoning.—*Dose* of 3%  $\text{H}_2\text{O}_2$  (Perhydrol 1, water 9) 1-4 fl. drs. (4-15 Ce.), well dil.—*Extern.*, in 2-10% solut.; 3% solut. is as powerful antiseptically as a 1:1000 corros. sublim. solut.; also in eye lotions & eye drops (as 0.3% solut.), & in gynecol. (3% solut. & tampons moistened w. a 12% solut.); also in dentistry for bleaching teeth & as inject. (10% solut.) in alveolar pyorrhea. Counteracts poisonousness of dipth. & tetanus toxins, & also of abrin.—*Incomp.*, alkalies, albumen, ammonia, arsenous salts, balsam Peru, carbolic acid, charcoal, chlorides, chlorine water, citrates of alkalies, ferric salts, glycerin, gold salts, hydrocyanic acid, hypophosphites, iodides, lime-water, manganese dioxide, mercurous salts, nitrates, potassium bromide, permanganates, sulphates, solution chlorinated soda, tartrates, tinctures.—*Caut.* Keep cool & quiet.

### do. Merck (1)

(Solution Hydrogen Dioxide, U. S. P.; Oxygenated Water).—3% solut. corresp. to 10 vols. avail. O.— $\text{H}_2\text{O}_2 + \text{aq}$ .—Colorl., sl'y acidulous liq; foams in mouth.—*Antisep.*; *Deodorant*; *Styp.*—*Uses*: *Extern.*, dipth., sore mouth, angular scarlat., eczema, chancre, whoop-cough, gonorr., otorrhea, absc., diab., phth., syph., rhinitis, suppur., fetid breath, fetid wounds, &c. U's'y appl. direct. to seat of dis., but occas. intern.—*Dose* 30-240  $\text{ml}$  (abt. 2-15 Ce.) well diluted.—*Appl.* 1-10% solut.—*Techn.*, bleach hair, silk, feathers, straw, ivory, bone, & textile fabrics; remove stains on old paintings, engravings, &c. in combination w. paraphenylenediamine as a dye for furs, hair, &c.—*Incomp.*, as of preceding.

### do.—Ethereal Solution

("Ozonized Ether").—Liq. obtained by mixing ether with hydrogen peroxide.—*Uses*: *Intern.*, Diabetes & whoop-cough.—*Extern.*, as antisep., like hydrogen peroxide, & local. in scarlet fever.—*Dose* 30-60  $\text{ml}$  (2-4 Ce.) sev. t. p. d.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Hydrogen Peroxide Merck.**—Reagent.—30% (16 (Perhydrol).  $\text{H}_2\text{O}_2$ , 30%, by wt.  $\text{H}_2\text{O}_2$ , Sp. Gr. 1.115–1.119.—Liq. acid to litmus paper (due entirely to high  $\text{H}_2\text{O}_2$  content).—*Tests:* ( $\text{H}_2\text{SO}_4$ ) 1 Ce. + 20 Ce.  $\text{H}_2\text{O}$  + 1 Ce.  $\text{HCl}$  (sp. gr. 1.124); boil, add solut.  $\text{BaCl}_2$ —no ppt. within 12 hrs.—(*Res.* [ $\text{H}_2\text{SO}_4$ ;  $\text{H}_3\text{PO}_4$ , &c.]) heat 10 Ce. on W.-bath—none wghble.—( $\text{H}_2\text{C}_2\text{O}_4$ ) 2 Ce. + 10 Ce.  $\text{H}_2\text{O}$  + solut.  $\text{CaCl}_2$ —no react.—( $\text{HCl}$ ) 1 Ce. + 20 Ce.  $\text{H}_2\text{O}$  + 1 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + solut.  $\text{AgNO}_3$ —no turb.—(*HF*) concentrate 10 Ce. + few drops solut.  $\text{NaOH}$  on W.-bath; transf. to watch-glass, & dry on latter; pour on res. conc.  $\text{H}_2\text{SO}_4$ ; let stand 2–3 hrs. in warm place—glass not etched.—( $\text{H}_3\text{PO}_4$ ) concentrate 5 Ce. on W.-bath; diss. res. in 3 Ce.  $\text{H}_2\text{O}$ ; add 1 Ce. magnesia mixt. + 3 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96)—no ppt. within 12 hrs.—*Uses:* Partic. desirable oxidizer in analysis, e.g., in oxidiz. sulphur in sulphides, sulphurous & hyposulphurous acids, of tin & the metals of the iron group, chromic acid, nitric acid, formaldehyde; analysis of  $\text{MnO}_2$ , conversion of iodates & bromates into iodides & bromides; determ.  $\text{HCl}$ ,  $\text{HI}$ , &  $\text{HNO}_3$ ; standardizing permanganate soluts.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Hydrogen Sulphide Water** (1)  
(Hydrosulphuric Acid; Sulphuretted Hydrogen; Sulphydric, or Hydrothionic, Acid; Hydrogen Monosulphide).—Aq. solut. of hydrogen-sulphide gas fr. iron sulphide.— $\text{H}_2\text{S}$  + aq.—Transp., colorl. liq.; very offens. odor.—*Misc.*, all prop., W., A.—Antituberc.—*Uses:* Chiefly chem.—*Antid.*, fresh air & cold affusions, w. hot brandy & water, & breathing chlorine from chlorinated lime.—*Caut.* Keep fr. light.

**Hydrogen Sulphide Water Merck.**—Reagent (1)  
 $\text{H}_2\text{S}$  + aq.—Clear, colorl. liq.; strong odor  $\text{H}_2\text{S}$ ; affords volum. ppt. on add. solut.  $\text{FeCl}_3$ ; acid react. towards litmus paper.—*Uses:* Detect. heavy metals.

**Hydrohydrastinine Hydrochloride Merck** (800)  
 $\text{C}_{11}\text{H}_{13}\text{NO}_2 \cdot \text{HCl}$ .—Fine, wh. powd.—*Sol.*, eas. W.—*Melt.* 274° C.—*Hemost.*; Vasoconstrictor; accelerates respiration, & causes dyspnea; has no action on heart, & causes successive increase, decrease, & increase of blood pressure.—*Uses:* Chiefly in uterine hemorrhage.—*Dose*  $\frac{1}{3}$ – $\frac{1}{2}$  grain (0.02–0.03 Gm.) 4 t. p. d., in capsules.—*Inf.* 8 M (0.5 Ce.) of 10% solut. in W.

**Hydronaphthylamine Hydrochloride.**—see **Thermin**

**Hydroquinone Merck.**—Highest Purity (2)  
(Paradioxybenzene [-zol]; Quinol; Hydrochinone).—Fr. quinone, by reduct. w. sulphurous acid.— $\text{C}_6\text{H}_6\text{O}_2$ , or  $\text{C}_6\text{H}_4(\text{OH})_2$  [1:4].—Colorl. cryst.—*Sol.* A., E., 17 W.—*Melt.* 169° C.—Antisep.; Antipyr.—*Uses:* *Extern.*, 1–3% solut. in

conjunctivitis, gonorr., &c., infect fevers, rheum., &c.—*Techn.*, as photo-developer—*Dose* 5–15 grains (0.3–1 Gm.) in wafers, caps., or in solut.—*Subst.* 2 Ce. of a 10% solut. in W.—*Mix.* D 30 grains (2 Gm.) single.—*Caut.* Keep solut. fr. air & light.—*Solut.* should always be freshly made; old solutions have a caustic action.

**Hydroquinone-dimethyl Ester Merck** (40)  
Fr. boil hydroquinone under pressure w.  $\text{KOH}$  & methyl iodide,  $\text{C}_6\text{H}_4(\text{OCH}_3)_2$ .—Colorl. cryst.—*Melt.* 56° C.—*Sol.* A., E.

**Hydroxybenzene.**—see **Acid Carbollic; Phenol**

**Hydroxylamine Hydrochloride Merck** (18)  
 $\text{NH}_2\text{OCl}$ , or  $\text{NH}_2\text{OH} \cdot \text{HCl}$ .—Colorl. cryst.—*Sol.* W., A., G.—*Dermic Antisep.*—*Uses:* *Extern.*, inst. of chrysarobin & pyrogallie acid in chronic psoria, lupus, itch, herpes, & o. skin dis.—*Techn.*, as photo-developer.—*Appl.* 0.1–0.5% solut. in A. or W.—*Caut.* Paint small surface at a time, else general health endangered.

**Hydroxylamine Hydrochloride Merck.**—Reagent.—Cryst. (25)

$\text{NH}_2\text{OH} \cdot \text{HCl}$ .—Dry, colorl. cryst.—*Sol.* 1 W.; 15 A.; G.—Aq. solut. acid to litmus.—*Tests:* (*Res.*) heat 1 Gm. on platin. foil—none.—( $\text{NH}_4\text{Cl}$ ) 1:20 aq. solut. +  $\text{PtCl}_4$ —no ppt.—( $\text{H}_2\text{SO}_4$ ) 20 Ce. 1:10 aq. solut. + solut.  $\text{BaCl}_2$ —no ppt. ( $\text{BaSO}_4$ ) within 12 hrs.—(*Fe*) 10 Ce. aq. 1:10 solut. + solut.  $\text{KSCN}$ —no react.—*Uses:* Reducer in determ. Au & Ag; in organic analysis & organic synthesis.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Hydroxylamine Sulphate Merck** (30)  
(Oxanunonium Sulphate).—( $\text{NH}_2\text{OH}$ ). $\text{H}_2\text{SO}_4$ .—Colorl. cryst.—*Sol.* W.—*Melt.* 140° C.

**Hymenæa Bark**

(Locust Tree; Courbaril; Varnish Tree; Jatahy).—*Hymenæa* Courbaril, L. Casalpiniaceæ.—*Habit.*: Brazil & West Indies.—*Etymol.*: Fr. Grk. "Hymen," god of marriage, i.e., the plant-leaf-pairs approach each other at night; "Courbaril" is the South American name of the plant.—*Constit.*: Aromat. resin; catechin; catechutannic acid.—Arterial Sedat.; Astring.—*Uses:* Hemoptysis, hematuria, dysentery, &c.—*Dose* 10–20 grains (0.6–1.3 Gm.) in powder, or as fluid extract.

**Hyoscin Merck.**—Amorph. (3420)

Fr. various Solanaceæ.— $\text{C}_{17}\text{H}_{21}\text{NO}_4$ .—According to the latest investigations, it is chemically & physiologically identical with scopolamine (q. v.).—Thick, alm. colorl., syrupy liq.—*Sol.* A., E., C.; sl. W.—Levogyrat.—*Hypn.*; Sedat.; Mydr.—*Uses:* *Intern.*, mania, chorea, alcoh. tremor, &c.; quiet & give sleep to insane.—*Extern.*, 4–6 drops 1:400 aq. solut., powerful mydr. effect. Salts us'y used.—*Dose*:

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



For insane,  $\frac{1}{30}$  grain (0.002 Gm.), cautiously incr. or repeated until effect is prod. For sane,  $\frac{1}{400}$ – $\frac{1}{200}$  grain (0.00015–0.0003 Gm.).—*Inf.*: For insane,  $\frac{1}{120}$ – $\frac{1}{60}$  grain (0.0005–0.001 Gm.). For sane,  $\frac{1}{400}$ – $\frac{1}{200}$  grain (0.00015–0.0003 Gm.).—*Max. D.*  $\frac{1}{20}$  grain (0.003 Gm.) daily.—*Antid.*, emetics, stom. siphon, muscarine, tannin, animal charcoal, enetics again; heat or cold extern., cathartics, &c.—*Caut.* Poison!

**Hyoscine Hydriodide Merck.**—Cryst. (2708)  
 $C_{17}H_{21}NO_4 \cdot HI$ .—Wh. prisms.—*Sol.* W., A.—*Uses*: As of hyoscine.

**Hyoscine Hydrobromide Merck.**—Cryst. (2708)  
 $C_{17}H_{21}NO_4 \cdot HBr + 3H_2O$ .—Colorl. cryst.—*Sol.*, abt. 4 W., 15 A.; slightly in E. & C.—*Melt.* (when anhydrous) 191°–192° C.—*Sed.*; Mydr.; Antaphrod.; Antisialag.—Salt most commonly used intern.; little used extern.—*Uses, Doses, Antid.*, &c.: As of hyoscine.—*Caut.* Poison!

**Hyoscine Hydrochloride Merck.**—Cryst. (2708)  
 $C_{17}H_{21}NO_4 \cdot HCl + 2H_2O$ .—Wh. cryst.—*Sol.* W., A.—*Melt.*, abt. 200° C.—*Uses, Doses, &c.*: As of hyoscine.

**Hyoscine Sulphate Merck.**—Cryst. (2708)  
 $(C_{17}H_{21}NO_4)_2 \cdot H_2SO_4$ .—Wh. cryst.—*Sol.* W., A.—*Uses & Doses*: As of hyoscine.

**Hyoscyamine Merck.**—From Belladonna or Scopol. —Cryst. (600)  
 Fr. Belladonna (or Scopol.) root.— $C_{17}H_{23}NO_3$ .—Wh., felted need.—*Sol.* A., E., C.—*Melt.* 108° C.—Levogyrate;  $[\alpha]_D$  abt. -21° in alcoholic solution.

**do. Merck.**—From Hyoscyamus or Scopol. —Highest Purity, cryst. (2708)

Alk'd fr. Hyoscyamus or Scopol. (see also Daturine).— $C_{17}H_{23}NO_3$  or  $CH_3(O.CO.CH[C_6H_5]_2)(CH_2.OH).CH_2.CH(N.CH_3).(CH_2)_2.CH.CH_2$ .—Wh., silky crystals.—*Sol.* A., E., C., acidul. W.; sl. in W.—*Melt.* 106–108° C.—Mydr.; Hypn.; Sed.—*Uses*: To quiet insane & nervous; ease cough in tuberculosis, asthma, &c.—*Doses*:  $\frac{1}{120}$ – $\frac{1}{60}$  grain (0.0005–0.002 Gm.) several t. p. d. in pill or solut.; as hypn. for insane,  $\frac{1}{8}$ – $\frac{1}{4}$  grain (0.008–0.015 Gm.).—*Max. D.*  $\frac{1}{20}$  grain (0.003 Gm.) daily.—*Antid.*, as of atropine.—*Caut.* Do not confound with eclectic "hyoscyamin!"

**do. Merck.**—From Hyoscyamus.—Amorphous (1710)

Amorph. alkaloid fr. Hyoscyamus niger, L.—Brown, syrupy liq.—*Sol.* A., C., E.—*Uses, &c.*: As of hyoscyamine, cryst.—*Dose*  $\frac{1}{8}$ – $\frac{1}{4}$  grain (0.008–0.015 Gm.).—*Antid.*, as of atropine.—*Caut.* Don't confound w. eclectic "hyoscyamin!"

**do. Merck.**—From Scopol. —Cryst. (2708)

**Hyoscyamine Hydriodide Merck.**—From Hyoscyamus. Cryst. (2708)

Fr. hyoscyamus alkaloid.— $C_{17}H_{23}NO_3 \cdot HI$ .—Wh. cryst.—*Sol.* W., A.—*Uses*: As of hyoscyamine, cryst.

**Hyoscyamine Hydrobromide Merck.**—From Belladonna.—Cryst. (600)

Fr. hyoscyamine fr. belladonna.— $C_{17}H_{23}NO_3 \cdot HBr$ .—Wh. cryst.—*Sol.*, eas. W.; 2 A.; 2.5 C.; 1600 E. (U. S. P.).—*Melt.* 151.5° C. (U. S. P.).

**do. Merck.**—From Hyoscyamus.—Amorphous (1710)

Fr. amorph. hyoscyamus alkaloid.— $C_{17}H_{23}NO_3 \cdot HBr$ .—Deliq., amorph. masses.—*Melt.* 78° C.—*Uses, Doses, &c.*: As of hyoscyamine, amorph.

**Hyoscyamine Hydrochloride Merck.**—From Belladonna.—Cryst. (600)

Fr. hyoscyamine fr. belladonna.— $C_{17}H_{23}NO_3 \cdot HCl$ .—Wh. cryst.—*Sol.* W., A.

**do. Merck.**—From Hyoscyamus.—Amorphous (2138)

Fr. amorph. hyoscyamus alkaloid.—Yellowish-wh., hygroscopic, crumbly mass.—*Sol.* W., A.—*Uses*: As of hyoscyamine, amorph.

**Hyoscyamine Methylbromide Merck** (5000)  
 Wh. cryst.—*Sol.*, eas. W. & dil. A.; diffic. in cold absol. A. & E.—*Melt.* 210–212° C.

**Hyoscyamine (Pseudo-) Merck** (6000)  
 Alkaloid fr. lvs. of Duboisia myoporoides, R. Br.— $C_{17}H_{23}NO_3$ .—Yellowish need.—*Sol.* A., C.; sl. W., E.—*Melt.* 133–134° C.—*Sed.*; Antispasmod.; &c.; like atropine, but weaker & more evanescent.—*Doses*: For the sane,  $\frac{1}{20}$ – $\frac{1}{60}$  grain (0.0005–0.001 Gm.).—*Inf.*, for the insane,  $\frac{1}{20}$ – $\frac{1}{10}$  grain (0.002–0.006 Gm.).

**Hyoscyamine Salicylate Merck.**—From Hyoscyamus.—Cryst. (2708)

Fr. hyoscyamus alkaloid, cryst.— $C_{17}H_{23}NO_3 \cdot C_7H_5O_3$ .—Wh. cryst.—*Sol.* W., A.—*Uses*: As of the alkaloid.

**Hyoscyamine Sulphate Merck.**—From Belladonna.—Cryst., commercial (600)

Fr. hyoscyamine fr. belladonna.— $(C_{17}H_{23}NO_3)_2 \cdot H_2SO_4$ .—Fine, wh. need.—*Sol.* W., A.—*Melt.* abt. 206° C.

**do. Merck.**—From Hyoscyamus.—Highest Purity, cryst. (2708)

Fr. hyoscyamus alkaloid, cryst.— $(C_{17}H_{23}NO_3)_2 \cdot H_2SO_4$ .—Wh., deliq. need.—*Sol.* W.: 6.4 A.; 2500 E.; & 2300 C. at 25° C. (U. S. P.).—*Melt.* 198.9° C. (U. S. P.).—*Caut.* Keep dry & fr. air.

**do. Merck.**—From Hyoscyamus.—Amorphous (1710)

Fr. hyoscyamine, amorph.—Yellowish, hygrosc. powd.—*Sol.* W., A.—*Uses*: As of the alkaloid. Salt most largely used for restraint of the insane.—*Dose*: As of hyoscyamine, amorph.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Hyoscyamus.** *U. S. P.*

Henbane; Hog's Bean; In-the-Road; Poison Tobacco; Black Henbane. —Dried lvs. & flowering tops of *Hyoscyamus niger*, L. Solanaceae, fr. plants of second year's growth. —*Habit*: Europe; Asia; natur. in U. S.; cultiv. in England. —*Etymol.*: Grk. "hys," hog, & "kyamos," bean, i. e., the bean is poisonous to hogs. —*Condit.*: Hyoscyine (scopolamine),  $C_{17}H_{21}NO_4$ ; hyoscyamine,  $C_{17}H_{21}NO_3$ ; hyoscyperin,  $C_{17}H_{21}O_4$ ; choline; mucilage. — *Narcot.*: Anodyne; Hypnot.; Mydriatic; Laxat.; Sedat. (to urinary tract.). — *Uses*: Delir. trem., insomnia, mania, nervous cough, spinal hyperesthesia, irritable bladder, colic, hysteria, nervous headache, & scrofula. — *Etern.*, in hemorrhoids, rheumat. swell., cancer, ulcers, &c. — *Doses*: *Lvs.*, 2-10 grains (0.12-0.6 Gm.). — *Alcoh. extr.*, 1-2 grains (0.06-0.12 Gm.); *Mar. D.* 3 grains (0.2 Gm.) single, 10 grains (0.6 Gm.) daily. — *Fld. extr.*, 3-10 ℥ (0.2-0.6 Ce.); *Mar. D.* 15 ℥ (1 Ce.) single, 45 ℥ (3 Ce.) daily. — *Tinct.*, 10-60 ℥ (0.6-4 Ce.). — *Seeds*: *Mar. D.* 5 grains (0.3 Gm.) single; 10 grains (0.6 Gm.) daily. — *Alcoh. extr.*,  $\frac{1}{6}$ -1 grain (0.01-0.06 Gm.). — *Antid.*, evacnants; stimulants (extern. & intern.); morphine; pilocarpine; physostigmine; artif. respiration; brandy; ammonia.

**Hyoscyamus Juice Merck**

(3

(Henbane Juice). — Fr. fresh lvs. & fl. tops *Hyoscyamus niger*, L.; preserv. w. alc. — Dark-green liq. — *Anod.*; *Sed.*; *Antispasm.* — *Uses*: Gout, rheum., nerv. headache, hyst., cough. — *Dose* 30-60 ℥ (2-4 Ce.). — *Antid.*, &c., as of hyoscyamus.

**Hypericum**

(St. John's Wort). — Whole plant *Hypericum perforatum*, L. Hypericaceae. — *Habit*: Europe; Northern Asia; natur. in U. S. — *Etymol.*: Grk. "hypo," under, & "ereike," heather, referring to its habit of growth. — *Constit.*: Tannin; coloring matter; volat. oil. — *Vulner.*; *Astring.*; *Sed.*; *Diuret.*; *Emoll.*; *Antisep.* — *Uses*: Extern. inst. of arnica. — *Dose* 30-120 grains (2-8 Gm.).

**Hypnal**

(30

(Chloral-antipyrine; Chloral-hydrate-antipyrine; Trichloraldehyde-oxyphenyldimethyl-pyrazol). — Hydrated chloral & antipyrine comb. —  $CCl_3CH(OH)_2 \cdot C_{11}H_{12}N_2O$ . — Colorl. cryst. — *Sol.* 15 W. — *Melt.* 67° C. — *Hypn.*; *Anal.*; *Antipyr.* — *Uses*: Insom., headache, spasms, cough, &c. — *Dose* 15-30 grains (1-2 Gm.).

**Hypnoacetin**

(Acetophenonaethylpara-amidophenol Ester). —  $C_6H_4(OCH_2CO_2C_6H_5)(NH_2CO_2CH_3)$ . — By condens. of para-acetaminophenol w. phenol & glae. acct. acid by  $ZnCl_2$ . — Lustr. leaf. — *Sol.*, eas. A.; insol. W. — *Antisep.*; *Hypn.* — *Dose* 3-4 grains (0.2-0.25 Gm.).

**Hypnone Merck.** — Highest Purity, Medicinal (23

(Acetophenone; Phenylmethylketone; Benzoylmethide). — By dry distil. calcium benzoate w.

acetate —  $C_{11}H_{10}O_2$ . — Limpid, colorl. liq., or at low temp., lamin. cryst.; pung. taste. — *Sp. Gr.* 1.0285. — *Sol.* A., E., C., fatty oils; sl. W. — *Melt.* 14° C. — *Boil.* 198-200° C. — *Hypn.* — *Uses*: Insom. — *Techa.*, in perfumery occasionally, because of its orange-blossom-like odor. — *Dose* 3-8 ℥ (0.2-0.5 Ce.) in capsules with glycerin, or in emuls. — *Mar. D.* 8 ℥ (0.5 Ce.) single; 25 ℥ (1.6 Ce.) daily.

**Hypophysis Cerebri.** — see Pituitary Gland

**Hypoquebrachine Hesse-Merck**

From bark of *Aspidosperma Quebrachoblanco*, Schlecht. —  $C_{21}H_{22}N_2O_2$ . — Yellow, or brown, amorph., bitter powd.; agglutinates in masses. — *Sol.* A., E., C.

**Hypoquebrachine Hydrochloride Hesse-Merck**

$C_{21}H_{26}N_2O_2 \cdot HCl$ . — Yellow to brown powd. — *Sol.* W., A.

**Hypoxanthine.** — see Sarcine

**Hyrkol**

(17

(Colloidal Mercury). — Dark, alm. black, tastel. powd. — *Sol.* W.; insol. A., E. — *Uses*: In constitutional syphilis, as 1:10 oint. or plaster instead of mercurial oint.; 45 grains (3 Gm.) the average quantity for one inunction; also intern. in infantile syphilis. — *Dose* 3-20 ℥ (0.2-1.3 Ce.) of a 1% aq. solut. accord. to age of child & severity of symptoms.

**Hyssop**

Whole plant *Hyssopus officinalis*, L. Labiatae. — *Habit*: Europe. — *Etymol.*: Fr. Hebrew "esob," & Arabic "azzof," sacred herb. — *Constit.*: Volat. oil; tannin; resin. — *Stim.*; *Aromat.*; *Carmin.*; *Tonic*; *Sudorif.* — *Uses*: Coughs, colds, & catarrhs, espec. of aged. — *Doses*: 15-60 grains (1-4 Gm.) in infus., — *Fld. extr.*, 30-60 ℥ (2-4 Ce.).

**Hyssop, Hedge.** — see Gratiola

**Hysterionica.** — see Baylahuen

**Iatrol**

Fr. "nascent iodine on certain coal-tar derivatives." —  $NH(C_6H_5O_2)(C_2H_5O)_2I_2$ . — Grayish-wh., odorl. powd. — *Sol.* A., E., C.; insol. W., glycerin, fixed oils. — *Antisep.*; *Cicatrizant*, &c., like iodoform.

**Ibit**

(Bismuth Oxyiodotannate). — Greenish-gray, odorl., tastel. powd. — Insol. in ordinary solvents. — *Antisep.* — *Uses*: As of iodoform.

**Iceland Moss.** — see Cetraria

**Ichthalbin**

(17

(Ichthyol Albuminate Knoll). — Grayish-brown, odorl., alm. tastel. powd. — *Sol.*, in alkaline fluids (such as intestinal secretion); insol. in ordinary solvents & in diluted acids (as gastric

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



juice), & in W.—Contains abt. 40% *ichthylsulphonic acid*.—External & Intestinal Antiseptic & Antiphlogistic; Alterative.—*Uses: Intern.*, phthisis, serofula, marasmus, enteritis, peritonitis, tuberculosis, puerperal septicemia, gastric & intestinal catarrh, typhoid, skin diseases, &c.—*Extern.*, ulcers, gonorrheal & catarrhal inflammation of the vagina, metritis, in exudates in peri- & parametritis, granulating wounds, ulcers, nasopharyngeal catarrh, &c.—*Dose* 10–30 grains (0.6–2 Gm.) 2 or 3 t. daily, before meals, in powd. or in tabl.

### Ichthargan (60)

("Silver Sulphoichthyolate," Ichthyl Co.; Silver-Ichthyl).—Brown, odorl., slightly hygrosc. powd.; 30% silver.—*Sol.* W., G., dil. A.—Astring.; Antiphlog.; Bacter.—*Uses:* Gonorr., &c.—*Extern.*, gonorr., 0.04–0.2% solut.; posterior urethritis, 3% solut.; trachoma, 0.5–3% solut.—*Caut.* Keep soluts. in amber bottles.—*Incomp.*, soluble chlorides.

### Ichthoform (20)

(Ichthylol - formaldehyde, Ichthyl Co.).—Blackish-brown, alm. odorl. & tastel. powd.—*Insol.* in ordinary solvents.—Surgical & Intestinal Antiseptic; reported energetic in action, yet non-toxic.—*Uses: Extern.*, wounds, ulcers, &c.—*Intern.*, chronic intest. catarrh, tuberc. enteritis, typhoid, intest. fermentation.—*Doses:* 15–30 grains (1–2 Gm.) 3 or 4 t. daily, in powd. Children, 4–8 grains (0.25–0.5 Gm.), in gruel or cocoa.—*Appl.*, pure or mixed with boric acid, starch, &c.

*Ichthyocolla*.—see *Isinglass*

### Ichthol (5)

(So-called Ammonium "*Ichthylsulphonate*" or Ammonium "*Sulphoichthyolate*").—An undefinable chemical combination of sulphonated hydrocarbons obt. by dry distil. of bituminous shale found in Seefeld, Tyrol, and made by the Ichthyl Co., Hamburg, Germany.—Introduced by Unna into dermatol. practice.—Thick, brown liq.; bituminous odor; contains easily assimilable sulphur.—*Sol.* W., G., & mixt. of equal vols. alcohol & ether; partly sol. in strong A. or E.—*Misc.*, fats, oils.—Antiphlog.; Anod.; Alter.; Antigonorr.; Antisept.; Dermic.—*Uses: Intern.*, phthisis, skin dis., rheum., serof., nephr., &c., gonorr., &c.—*Extern.*, 5–50% oint., solut., &c.; in scarlet fever (in 5–10% lanum oint., as recom. by Seibert); in urticaria, erosions, prur., gout, boils, carbuncle, acne, ecz., herpes, burns, catarrh, erysipelas, chilbl., rheumat., peritonitis, &c.; 10% w. glycerin on tampons or in supposit. in uterine & vaginal inflam.; 1–3% soluts. or 1–2 m (0.06–0.12 Ce.) bougies in gonorr.; pure in ivy poisoning.—*Dose* 3–30 m (0.2–2 Ce.), in pills, caps., or in water.—*Incomp.*, acids precipitate a dark, resinous mass; alkali hydroxides or carbonates decompose it; with alkaloids or their salts, compounds are formed of much firmer consistency than Ichthyl, and far less soluble;

potass. iodide; hydrastis; mercuric chloride; resorcinol.—For Deodorizing Ichthyl the addition of 1 part each Oil Bergamot & Oil Eucalyptus, to 50 parts Ichthyl, has been recommended.—Before applying Ichthyl it is advisable, except in eczema, to wash parts each time in warm water & dry gently. After inunction or painting, the parts are best covered with cotton-wool, or flannel, & gutta-percha tissue.—Ichthyl stains may be removed by boiling the fabric in soap & water, or by washing with soft soap or soap spirit.

*Caution.*—Ammonium "*Ichthylsulphonate*" is the article always understood when simply "Ichthyl" is spoken of, and all references in literature relate to this product. A large number of imitations of Ichthyl are to be found on the market under various misleading names. These substitutes, however, vary from Ichthyl, and from each other, in important physical and chemical characteristics and therapeutic properties, and are derived from sources other than the Seefeld shale yielding the true preparation upon which all clinical reports have been based.

*Ichthyl Albuminate*.—see *Ichthalbin*

*Ichthyl-Formaldehyde*.—see *Ichthoform*

### Ichthyl Lithium (15)

(So-called Lithium "*Sulphoichthyolate*").—Dark-brown, extr.-like mass.—*Uses*, &c.: As of Ichthyl. Us'y in 50% oint.—See Ichthyl.

### Ichthyl Sodium (7)

(So-called Sodium "*Sulphoichthyolate*").—Brown mass.—*Sol.* W., G., & mixt. of A. & E.

### Ichthyl Zinc (10)

(So-called Zinc "*Sulphoichthyolate*").—See Ichthyl.

### Ignatia

(Ignatius Bean; St. Ignatius' Bean).—Bean of *Ignatia amara*, L. fil. (*Strychnos Ignatia*). Loganiaceae.—*Habit.*: Philippine Islands; natur. in Cochinchina.—*Etymol.*: Named for the Jesuit, Ignatius de Loyola (1491–1556), who brought the beans from India.—1 in. (25 Mm.) long,  $\frac{3}{4}$  in. (abt. 20 Mm.) broad, brownish, & covered with brown, silky hairs; horny, & very bitter; odorl.—*Constit.*: Strychnine; brucine; igasuric acid; loganin,  $C_{23}H_{33}O_{14}$ .—Nerve Tonic, like strychnine.—*Uses:* Chron. constip., dyspep., nerv. dis., neural., paral., & as tonic in convalesc.—*Doses:*  $\frac{1}{5}$ –3 grains (0.03–0.2 Gm.).—Alcoh. extr.,  $\frac{1}{8}$ – $\frac{1}{2}$  grain (0.008–0.03 Gm.); Max. D.  $\frac{3}{4}$  grain (0.05 Gm.) single, 2 grains (0.12 Gm.) daily.—Fld. extr., 1–4 m (0.06–0.25 Ce.).—*Antid.*, emetics, stomach siphon, tannin, potass. iodide, chloroform, amyl nitrite, opium, &c.

### Ilex Aquifolium

(European Holly).—Lvs. of *Ilex aquifolium*, L. Ilicaceae.—*Habit.*: Europe.—*Etymol.*: *Ilex*, fr. Celtic "ee," or "ae," point, fr. the spiny lvs.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



"Aquifolium" fr. Lat. "acus," needle, & "folium," leaf, i.e., the lvs. are spiny.—*Constit.*: Ilixanthin,  $C_{15}H_{22}O_{11}$ ; illicic acid, illicin; pectin.—*Uses*: Antarthritic; Antispasmodic; Tonic; Antihidrotic; Antiperiodic.

*Her. Paraguayensis.*—see **Maté**

## Illicium

(Star-Anise; Chinese Anise).—Fruit of *Illicium verum*, Hooker fil. (*I. anisatum*, Gaertn.). Magnoliaceae.—*Habit*: Northern Anam; southern China; Japan.—*Etymol.*: Fr. Grk. "anison," "anethon," fr. the Arabic "anisum," anise. "Illicium," fr. Lat. "illicio," to allure, owing to its attractive odor; & "verum," true.—*Constit.*: Volat. & fixed oils; anisic acid; tannin; resin; fat; pectin.—*Stim.*: Diuretic; Arom.; Carminat.—*Uses*: Techn., in manuf. of liqueurs, & volat. oil.—*Dose* 5-30 grains (0.3-2 Gm.).

*Imidodiphenyl.*—see **Carbazole**

*Imidoxanthine.*—see **Guanine**

*Iminatetramethylamidodiphenylmethane Hydrochloride.*—see **Pyoktanin Yellow**

*Immortelles.*—see **Helichrysum**

## Imperatoria

(Masterwort; Felon-grass; Felonwort).—Rhizome of *Imperatoria Ostruthium*, L. Umbelliferae.—*Habit.*: Central & southern Europe; adv. in U. S.—*Etymol.*: Lat. "imperator," imperial, referring to its valuable therapeutic properties.—*Constit.*: Volat. oil; ostruthin.—*Stomachic*; *Stim.*; Aromat.; Masticatory.—*Uses*: Techn., in manuf. of liqueurs.

*Imperatorin.*—see **Peucedanin**

*Imperial Green.*—see **Copper Acetoarsenite**

## Impigem

(Paracaxi Beans; Rabo de Cavalho [Horse's Tail]; Piaçá; Campineiro).—Beans of *Cratyla obliqua*, Griesbach. Casalpiniaceae, Amherstiae.—*Habit.*: Brazil.—*Etymol.*: "Impigem" is the Brazilian name of the drug.—*Uses*: Skin dis.

*Indageer.*—see **Holarrhena**

*Indian Aconite.*—see **Aconitum (Ferox)**

*Indian Balsam.*—see **Balsam Peru**

*Indian Cannabis.*—see **Cannabis Indica**

*Indian Ginger.*—see **Asarum Canadense**

*Indian Hemp, White.*—see **Asclepias Incarnata**

*Indian Licorice.*—see **Abrus**

*Indian Pennywort.*—see **Hydrocotyle**

*Indian Physic.*—see **Gillenia**

*Indian Poke.*—see **Veratrum Viride**

*Indian Tobacco.*—see **Lobelia**

*Indian Yellow.*—see **Azoflavin 2; Cobalt & Potassium Nitrite**

## Indigo

(6

(Crude Indigo Blue).—Fr. var. sp. *Indigofera*.—Dark-blue, odorl., tasteless pieces or powd.—*Sol.*, conc. sulphuric acid.—*Emmen*; Emetic; Antisept.—*Uses*: Techn. (in dyeing & printing); formerly intern. in epilepsy, hysteria, &c.

**Indigo Merck. Reagent.—Synthetic** (40

Dark-blue, fine powder; at least 95% indigo blue.—*Tests*: (Ash) heat 1 Gm. in platin. cruc. — purple-red vapors evolve; ignite res. — wt. not more than 0.01 Gm.—( $H_2O$ ) dry 1 Gm. at 100° C. to const. wt. — loss not more than 0.01 Gm.—*Uses*: Prepar. indigo solut. for detect. & determ.  $HNO_3$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.—Reagent.—Fr. plants** (8

Dark-blue, light pieces; metal coppery luster on rubbing; at least 60% indigo blue.—Lighter than water.—*Tests*: (Ash) ignite 1 Gm. — not more than 0.12 Gm. res.—( $H_2O$ ) dry 1 Gm. to const. wt. at 100° C. — loss not more than 0.06 Gm.—*Uses*: Prepar. indigo solut. for detect. & determ.  $HNO_3$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. These reagents conform to the standard therein given.

*Indigo Blue.*—see **Indigotin**

**Indigo Carmine Merck.—Dry** (12

(Soluble Indigo; Indigo Extract; Sodium Indigotindisulphonate; Sodium Carzulin sulphate).— $C_{16}H_8N_2O_2(SO_3Na)_2$ .—Blue powd.—*Sol. W.*—*Uses*: Techn., as a dye; also in volumetric estim. of nitrates or chlorine (these decolorize indigo solut. on boiling).

**do. Merck.—Paste** (5

Blue, pasty mass.—*Sol. W.*—*Uses*: Dye.

*Indigo Carmine-Boraxcarmine.*—see **Seiler's Indigo-carmine-Boraxcarmine**

*Indigo Carmine-Oxalic Acid.*—see **Merkel's Indigo-carmine-Oxalic Acid**

## Indigo-Carmine Paper

Wh. paper, charged w. indigo-carmine & sod. carbonate.—*Uses*: Test for sugar in urine (violet to yellow color), & for estimating oxygen (yellow color).

**Indigo-Carmine & Sodium-Carbonate Papers, Geissler-Oliver**

Strips of wh. paper some of which are impregnated w. a solut. of indigo carmine & some w. a solut. of sodium carbonate, & then dried.—*Uses*: Detecting sugar in urine (on immersing a strip of each paper in the urine, the bluish color imparted to the urine changes successively to green, red, & yellow, fr. reducing action of sugar on the indigo carmine [Mulder's reaction]).

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Indigo, Soluble.*—see **Indigo Carmine**

*Indigo, Wild.*—see **Baptisia**

**Indigotin Merck.—Pure (110)**

(Indigo Blue).—Pure color. matter fr. indigo.— $C_{16}H_{10}N_2O_2$ .—Dark-blue, cryst. powd.; bronze luster.—*Sol.*, aniline, nitrobenzene, conc.  $H_2SO_4$ , glacial acetic acid, heavy petroleum oil; sl. in  $C$ ,  $CS_2$ , phenol; insol.  $W$ ,  $A$ , & dil. acids.—*Subl.*, at  $300^\circ C$ .—*Uses*: Chem., & techn. as dye.

**Indigotin Merck.—Reagent (140)**

$C_{16}H_{10}N_2O_2$ .—Purple, rhomb. cryst., w. coppery luster; or dark-blue powd. w. reddish tint, exhibiting a coppery luster on pressure or rubbing.—*Sol.* 15 conc.  $H_2SO_4$ , 5 fum.  $H_2SO_4$ ; insol.  $W$ ,  $A$ ,  $E$ , dil. acids, & alkalies.—*Tests*: (*Res.*) ignite 1 Gm.—not more than 0.0015 Gm. res.—(*H<sub>2</sub>O*) dry 1 Gm. to const. wt. at  $100^\circ C$ .—loss not more than 0.005 Gm.—*Uses*: Determin.  $HNO_3$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Indium Merck (8500)**

Metal.—*In.*—*Etymol.*: Named fr. the indigo-blue line given by the spectrum of the metal. Discovered in 1863 by Reich & Richter.—Ductile, shin., silver-wh. metal.; softer than lead.—*Sp. Gr.* 7.362 at  $15^\circ C$ .—*Melt.*  $176^\circ C$ .

**Indium Chloride Merck (8500)**

(Indium Trichloride).— $InCl_3$ .—Yellowish, hygrosc. powd.—*Sol.*, eas. in  $W$ .

**Indium Oxide Merck (10000)**

(Indium Sesquioxide).— $In_2O_3$ .—Wh. to pale-yellow powd.—*Sol.*, hot acids.

**Indium Sulphate Merck (8500)**

$In_2(SO_4)_3$  + aq.—Wh. or gray, hygrosc. powd.—*Sol.*  $W$ .

*Indium Trichloride.*—see **Indium Chloride**

**Indoform**

(Salicylic acid-methyleneacetate).—By action of formaldehyde on acetylsalicylic acid.—Wh. powd.; acid, astring. taste.—*Sol.*, diffic. cold  $W$ , more eas. hot  $W$ .—*Melt.*  $108-109^\circ C$ .—*Intest.* Antisept.; liberates formaldehyde in intestines.—*Uses*: Gout, sciatica, rheumat., neuralgia, headache, toothache, gravel, &c.—*Dose* 8-25 grains (0.5-1.6 Gm.).

**Indole Merck.—Cryst. (3500)**

(Ketole).—Decomp. prod. of pancreas; & synth. by heating orthonitrocinamic acid w.  $KOH$  & iron filings.— $C_8H_7N$ , or  $C_8H_7(CH_3NH)CH$ .—Colorl. to yellowish scales; intense fecal odor.—*Sol.*  $A$ ,  $E$ , ligroin; hot  $W$ .—*Melt.*  $52^\circ C$ .—*Boil.*  $254^\circ C$ , w. decomp.—*Uses*: Best micro-chem. & physiolog.-chem. reagent for lignified cellular tissue (*e.g.*, wood shavings). The tissues are moistened first w. a warm, weak aqueous indole

solut. & then w. sulphuric acid of sp. gr. 1.3, whereupon lignified cellular tissue soon acquires a red color. In highly dilute solution, indole possesses an odor like that of orange blossoms, hence may also be used in perfumery.

**Indophenol Merck.—Powder (15)**

(Naphthindophenol).— $(CH_3)_2N.C_6H_4.N.C_{10}H_6O$ .—Brown. powd.—*Sol.*  $A$ , & acetic acid w. blue color; insol.  $W$ .—*Uses*: Dye.

**Indophenol White**

(Leucoindophenol).—Reduct.-prod. fr. blue indophenol.— $C_{16}H_{12}N_2O$ .—Whitish paste.—*Sol.*, dil. acids.—*Uses*: Dye.

**Induline Merck.—Alcohol-Soluble (10)**

(Alcohol-soluble Fast Blue; Azin Blue; Printing Blue; Acetin Blue; Nigrosine).—Anilido-diphenylsulfaniline hydrochloride(?).—Blue-black powd.—*Sol.*  $A$ , w. blue color; insol.  $W$ .—*Uses*: For black spirit lacquers & varnishes, & in printing fabrics blue.

**do. Merck.—Water-Soluble (10)**

(Water-soluble Fast Blue; Solid Blue; Water-soluble Nigrosine).—Sodium salts of the sulphonic acids of various alcohol-soluble indulines.—Powd. w. bronze-like luster, or black, shining pieces.—*Sol.*  $W$ , w. blue-violet color; in  $A$ , w. blue color.—*Uses*: Dyeing wool, & manuf. ink.

**Induline Blue 6 B.—Fat Dye (20)**

Sodium salt of sulphonic acid of the induline  $C_{36}H_{28}N_5Cl$ .—Obt. by heat. amidoazobenzene w. aniline hydrochloride & aniline.—Bluish-black powd.—*Sol.*  $A$ , fats, oils, &c.—*Uses*: Coloring oints., soaps, candles, pomades, &c.

*Infusorial Earth.*—see **Kieselguhr**

**Ingluvin**

Enzyme fr. gizzard of domestic hen.—Yellowish, horny masses, or gran. powd.—*Sol.*  $W$ .—Proteolytic.—*Uses*: Morn. sick. of pregn.; dyspep.—*Dose* 5-10 grains (0.3-0.6 Gm.), followed by 1 fl. oz. (30 Cc.) of a 1% solut. hydrochloric acid.

*Ink; Diamond, or Etching.*—see **Diamond Ink**

*Inkomankomo.*—see **Pannum**

**Inosite Merck (6500)**

(Phaseomannite; Meat Sugar; Nucleite).—Carbohydrate in several plants (lvs. of *Fraxinus excelsior*, &c.), & muscular tissue of animals.— $C_6H_{10}(OH)_6 + 2H_2O$ .—Colorl., effloresc. cryst.—*Sol.* 6  $W$ ; sl. dil.  $A$ .—*Melt.* (anhydr.)  $220^\circ C$ .

*Insect Powder.*—see **Chrysanthemum; Pyrethrum**

**Inula**

(Elecampane; Scabwort; Elfwort; Horse-heal; Helenium).—Root of *Inula Helenium*, L. Compositae.—*Habit.*: Central Asia; Europe; natur. in  $U. S.$ —*Etymol.*: "Inula," old Lat. for elecampane, probably derived fr. "helenion," the Grk. name of the plant; & this fr. "helos," a marsh, *i.e.*, the plant usually grows in damp places.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Indoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



On fr. (ark. "kōm") the sun, because of the form of the flowers. On fr. Helen of Troy, to whose tears the plant is said to have sprung. *Constit.* Volat. oil; albid. luscious, elastic root; a red resin, oxides, mucilage. — *Expositor*, Stem, Duret.; diaphor. Linnæus. *Traité* — *Uses*. Amnorr., dyspep., bronch., & dropsy. — *Intern.*, puerilis, tetter, & other skin diseases. — *Dose*, 30-60 grains (2-4 Gm.). — *Alcoh. extr.*, 5-10 grains (0.3-0.6 Gm.). — *Ed. extr.*, 30-60 m. (2-4 Ce.).

*Inula Camphor.* — see **Helenin**

## Inulenin

Fr. *Inula Helenium*, L. —  $C_6H_{10}O_5 \cdot 2H_2O$ . — Fine messl. — *Sol.*, sl. W. & dil. A.

**Inulin Merck.** — White (15)

(Amst. Starch. — Carbohydrate fr. bulb. *Dahlia variabilis*, Desf. — Horny, colorl., starch-like masses, or wh. powd. — *Sol.*, hot W. — *Uses*. Making bread for diabetic subjects.

**do. Dragendorff-Merck** (25)

Fr. roots of *Dahlia variabilis*, Desf. — Wh. powd. — *Melt* 165° C. to a gummy mass. — Otherwise like the preceding.

**do. Kiliani-Merck** (15)

(Menyanth. ; *Dahlia*; *Antin*; *Sinistrin*; *Synanthrin*; *Helenin*) — Carbohydrate fr. roots *Inula Helenium*, L. (*Elecampane*) & o. Composite — ( $C_6H_{10}O_5$ ) — Wh. starch-like powd. — *Sol.*, hot W.

*Invertase.* — see **Invertin**

**Invertin Merck** (1750)

(Invertase; Zymase). — Enzyme fr. yeast (*Saccharomyces* species); converts sucrose into dextrose & levulose. — Whitish powd. — *Sol.* W.

**Iodacetanilide Merck** (100)

(Iodantifebrin; Acetoparaiodanilide). — From acetanilide in acetic acid, by iodine chloride. —  $C_8H_7INO_2$  or,  $C_8H_7I.NH(C_2H_3O)$ . — White cryst. — *Sol.* A., glac. acet. acid; insol. W. — *Melt*, 181.5° C. — Therapeutic data lacking.

**Iodalbacide** (22)

Yellowish-wh. powd. — 10% L. — *Sol.* W. — *Uses*: Tertiary & secondary syphilis, bronch. asthma, chronic catarrhal affect. of respiratory organs, struma, arthritis, & psoriasis. — *Dose* 15 grains (1 Gm.). 3-6 t. p. d.

*Iodamyl.* — see **Amyl Iodide**

**Iodamylene Merck** (15)

(Valerylène Hydriodide). — React.-product of valerylène w. fuming hydriodic acid. —  $C_5H_9I$ , or,  $C_5H_9.HI$ . — Clear, colorl. liq.; soon darkens, espec. on expos. to light. — *Sol.* A. — *Boil.* 140-142° C. — *Caution*. Keep fr. light.

*Iodaniline, Di.* — see **Diiodaniline**

**Iodaniline (Para-) Merck.** — Cryst. (90)

(Paraiodaniline). — React.-prod. fr. aniline w. iodine. —  $C_6H_4.NH_2.I[1:4]$ . — Colorl. to bluish cryst. — *Sol.* A., E., C. — *Melt*, 60° C. — Antisept.

**Iodaniline (Para-) Hydrochloride Merck** (90)

$C_6H_4.NH_2.HCl$  — Yellowish cryst. plates. — *Sol.* A., & W.

**Iodaniline (Para-) Sulphate Merck** (90)

$C_6H_4.NH_2.H_2SO_4$  — Yellowish cryst. — *Sol.*, l. W.

**Iodanisol Merck** (120)

(Anisol. Orthiodide). —  $C_6H_4.OCH_3.I[1:2]$ . — Yellow liq. — *Sp. Gr.*, 1.8 at 20° C. — *Boil.* 240° C. — *Sol.*, eas. in A., E., & C.; insol. W. — Antisept. like iodophor.; energetic local irritant.

*Iodantifebrin.* — see **Iodacetanilide**

*Iodantipyrim.* — see **Iodopyrine**

**Iodeosine Merck** (15)

(Tetraiodofluorescein). — Red. powd. — *Sol.* A., E.; insol. W. (the sodium salt — see Erythrosine — is soluble in W.). — *Uses*: Indicator.

**Iodeosine Merck.** — Reagent (20)

(Tetraiodofluorescein). —  $C_{20}H_8I_4O_5$ . — Scarlet red, cryst. powd. — *Sol.* A. (deep-red solut.), E. (yellowish-red solut.); insol. in W. cont. trace HCl. — Indicator solut.: 1 Gm. iodeosine + 500 Ce. A. — *Tests*: (Indicator) 5 drops solut. + 100 Ce.  $H_2O$ ; overlay w. 30 Ce. E.; run in by drops fr. burette. centinorm. HCl, shake after add. ea. drop, till aqu. liq. just becomes colorless. Then add 5 drops more iodeosine solut.; again shake — aqu. layer must not acquire a pink color, or, if it does, color must disappear on add. 1 drop centinorm. HCl. — *Uses*: Indicator, specially suitable for titrating minute quantities of alkalies, & also alkaloids.

*Note.* — For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## Iodeosine G

(Dianthine G.; Erythrosine G.). — Sod. or potass. salt diiodofluorescein. — Fr. fluorescein by I &  $HIO_3$ , or by ICl & NaOH in aqu. solut. —  $C_{20}H_8O_5I_2Na_2$ , or,  $C_6H_4(CO.C_6H_4H_2IONa)_2O$ . — Yellowish-brown powd. — *Sol.* W. — *Uses*: Techn., dye. wool yellowish-red w. yellowish-red fluorescence.

*Iodethylene.* — see **Diiodoform**

**Iodine Merck.** — Resublimed (5)

*Etymol.*: Fr. Grk. "iocides," violet-colored. Discovered in 1811 by Courtois, & named by Gay-Lussac because of the violet-colored vapors. — I. — Fr. crude iodine by resubl. — Bluish-black, friable plates; metallic luster; peculiar odor; sharp, acid taste. — *Sp. Gr.* 4.948 at 17° C. — *Sol.*, solut. potass. iodide, carbon disulph.; C.; 50 G.; 5000 W.; 10 A.; 3 E. — *Melt.*, abt. 114° C. — *Boil.* 187° C. — Antisept.; Alter.; Dermic, Caustic. — *Uses*: Chiefly extern., inhal.: asthma, croup, & bronch.; oint.: erysipelas, & o. skin dis., &c.; tincture: enlarged & scrof. glands &

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



cervix uteri, in inflam.—*Techn.*, preparing many important pharmaceutical & photographic preparations, & also largely in manuf. of aniline dyes.—*Dose*  $\frac{1}{4}$ –1 grain (0.015–0.06 Gm.) in dil. solut.—*Max. D.* 1 grain (0.06 Gm.) single; 3 grains (0.2 Gm.) p. day.—*Antid.*, emetics, stom. siphon, starchy foods in abundance, sodium sulphanilate, calcined magnesia, analeptics, starch injections, sodium thiosulphate; amyl nitrite by inhalat.—*Incomp.*, oil of turpentine, starch, veget. colors, tannin, &c.

**do.**—Crude (4)

Crude iodine.—I.—Black, cryst. pieces.—*Sol.*, partly A.

**Iodine Merck.**—Reagent.—Resublimed (15)

I.—Blackish-gray, dry, rhomb. plates or scales; metal. luster; 99.8–100% I.—*Sol.*, eas. A., E., C.; 5000 W.; v. freely in aqu. solut. *KI*.—*Tests:* (*Res.*) caut. heat 1 Gm. in porcel. dish—none wghble.—(*CN*; *Br*; *Cl*) 0.5 Gm.+20 Cc.  $\text{H}_2\text{O}$ ; shake & filter; a: to 10 Cc. filtrate add by drops decinorm. solut.  $\text{Na}_2\text{S}_2\text{O}_3$  till decolorized, then add a granule  $\text{Fe}_2\text{SO}_4$ +1 drop solut.  $\text{FeCl}_3$ +2 Cc. solut.  $\text{NaOH}$ ; warm to abt.  $60^\circ\text{C}$ .; add 10 Cc.  $\text{HCl}$  (sp. gr. 1.124)—no blue color; b: to 10 Cc. filtrate add 1 Cc.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96)+5 drops solut.  $\text{AgNO}_3$ ; filter; add to filtrate 2 Cc.  $\text{HNO}_3$  (sp. gr. 1.153)—not more than opalesc. turb., but no ppt.—*Uses:* Standard solut's; microscopy, synthesis; detect. cellulose, amyloid, alkaloids, sulphites, thiosulphates; determ. Hg, As, Sn, acetone,  $\beta\text{B}$ , & tartar emetic.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Iodine Albuminate Merck** (16)

(Iodized Albumin).—Dried iodized albumin; cont. abt. 3% I.—Yellowish scales.—*Sol.*, part. in W.—Mild, readily absorbed iodine prep.—*Dose* 15–30 grains (1–2 Gm.) sev. t. p. d.

**Iodine Bromide.**—see **Iodine Monobromide, Tribromide & Pentabromide**

**Iodine Chloride.**—see **Iodine Monochloride & Trichloride**

**Iodine Cyanide Merck** (175)

(Cyanogen Iodide).—Fr. iodine w. a metallic cyanide.—*ICN*.—Colorl. need.; v. pung. odor; acrid taste; violent poison for warm- & cold-blooded animals.—*Sol.* W., A., E., volat. oils.—*Melt.*  $146.5^\circ\text{C}$ .—*Uses:* Generally for destroying all lower forms of life. Taxiderm. preservative for insects, butterflies, &c.—*Antid.*, stom. siphon, plenty warm water, cold douches, artifl respir., ammonia, chlorine, &c.—*Caut.* Poison!

**Iodine Green Merck** (25)

(Metternich's Night, or Pomona, Green).—Fr. chlormethylhexamethylrosaniline hydrochloride w. zinc chloride.— $\text{C}_{27}\text{H}_{35}\text{N}_3\text{Cl}_2+\text{ZnCl}_2$ , or,  $\text{C}_6\text{H}_5\cdot\text{CH}_3\cdot\text{N}(\text{CH}_3)_2\cdot\text{C}(\text{C}_6\text{H}_4)_2[\text{CH}_3]_2\cdot\text{CH}_3\text{Cl}_2+\text{ZnCl}_2$ .—

Dark-green lumps.—*Sol.* W.—*Uses:* *Techn.*, for dyeing silk green.—Formerly cont. iodine.

**Iodine Monobromide Merck** (25)

(Bromine Iodide).—*IBr*.—Cryst. mass; color of I.—*Sol.* W., w. decomp.—*Melt.*  $36^\circ\text{C}$ .

**Iodine Monochloride Merck** (14)

Fr. dry chlorine w. dry iodine.—*ICl*.—Reddish-brown, oily liq. or cryst.—*Sol.* A., dil.  $\text{HCl}$ .—*Melt.* (cryst.)  $25^\circ\text{C}$ .—*Boil.*  $101^\circ\text{C}$ .

**Iodine Pentabromide**

$\text{IBr}_5$ .—Dark-brown liq.—*Sol.* W.—Antiseptic.—*Uses:* 0.1% solut. as diphth. gargle.

**Iodine Pentoxide.**—see (Acid) Iodic Anhydride

**Iodine Tribromide Merck** (12)

(Iodine Bromide).— $\text{IBr}_3$ .—Dark-brown liq.—*Sol.* W.—Antisep.—*Uses:* Diphth., &c., in form of spray, & in gargles (in 1:300 solut. w. addition of 8 grains [0.5 Gm.] potass. bromide), sodium benzoate being also given internally in quantities of 45–60 grains (3–4 Gm.) per day.

**Iodine Trichloride Merck** (14)

$\text{ICl}_3$ .—Orange-yellow, deliq., cryst. powd.; pung., irrit. odor.—*Sol.* W., A., B.—*Melt.*  $25^\circ\text{C}$ . w. decomp.—Antisep.; Disinf.; Antizym.; Alter.—*Uses:* Chiefly extern., 1:1000 solut.; ulc., cutan. dis., gonorr., & surg. prac.—*Intern.*, abnormal gastric decomposition processes.—*Dose* 60 m (4 Cc.) of a 1:1000 solution.—*Max. D.*  $\frac{1}{6}$  grain (0.01 Gm.) single;  $\frac{1}{2}$  grain (0.03 Gm.) p. day.—*Caut.* Keep solutions & powd. fr. light & air. Poison!

**Iodine Water Merck.**—Reagent (1)

Satur., aqu. solut.; 1000 Cc. cont. abt. 0.2 Gm. I.—*Uses:* Stain; detect. starch, & cocaine hydrochloride, &c.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Iodipin 10%** (5)

(10% Iodized Sesame Oil Merck).—10% iodine.—Iodine addition-product of sesame oil.—7.65 Gm. 10% iodipin correspond to 1 Gm. potass. iodide.—Yellow fluid, of purely oleaginous taste.—Alter.; Anticachectic. Readily absorbable, & liberates its iodine less rapidly than the alkali iodides, so that its action is sustained for a long time; also said to be carried even to remotest parts of body.—*Uses:* Tertiary syphilis, scrofula, tabes, angina pectoris, gonorrhoeic sciatica, adiposity, tuberculous swellings, pleurisy, asthma, &c.—*Dose* 1–3 fl. drs. (4–12 Cc.) 3 or 4 t. daily, in emulsion with peppermint water & syrup, or pure, flavored with oil peppermint; children in proportion.—Iodipin is also excellently adapted for determining gastric motility.

**do.** 25% (11)

(25% Iodized Sesame Oil Merck).—25% iodine.—3 Gm. 25% iodipin correspond to 1 Gm.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



potass. iodide.—*Action & Uses*: Same as preceding, but intended more especially for hypoderm. use.—*Inf.*, 30–90 m (2–6 Cc.).

**Iodipin Solid Merck** (12)

Solid form of iodipin obt. by emulsifying iodipin w. roborat (a veget. albuminoid rich in lecithin); cont. 40% of 25-% iodipin=10% I. —Grayish-yellow or yellowish scales.—*Uses*, &c.: As of iodipin; particularly suitable for intern. administration.—*Dose* 30 grains (2 Gm.) 2–3 t. p. d.

*Iodistol.*—see **Thymol Iodide**

*Iodized Albumin.*—see **Iodine Albuminate**

**Iodolecithin**

Fr. lecithin by iodine chloride.—Brownish-yellow, wax-like mass; 7–8°C I.—*Sol.* E., warm A.; swell up without diss. in W.—*Uses*: Scrof. & syph.

*Iodobenzol, Mono.*—see **Benzene, Iodo-**

**Iodocaffeine Rummo-Merck** (30)

(Caffeine-Sodium Iodide).—Wh. powd.—65% caffeine.—*Sol.* W.; decomp. by hot W.—*Diur.*; *Stim.*; *Alter.*—Exhibits combined physiological properties of alkali iodides & caffeine; increases systolic energy, arterial pressure, & diuresis.—*Uses*: Chiefly mitral stenosis & o. cardiac affect., & inflammatory degenerative hepatic processes w. secondary ascites.—*Dose* 5–8 grains (0.3–0.5 Gm.) 2–6 t. p. d.

*Iodochloroquinoline.*—see **Vioform**

*Iododisobutylorthocresol.*—see **Europhen**

**Iodoform Merck.—Cryst.** (5)

(Triiodomethane; so-called Formyl Triiodide).—*React.* prod. iodine, alc. (or acetone, &c.), sod. hydroxide & W.— $\text{CHI}_3$ .—Sm., yellow, lustr. scales, or cryst. powd.; unct. touch; str., disagre. odor.—*Sol.* 6 E., 20 C., B., oils; 12 boiling & 60 cold A.; 52 A. at 15° C.; (9391 W., 46.7 A., 5.2 E. at 25° C., U. S. P.)—*Melt.* 115° C.—*Antisept.*; *Alter.*; *Anesth.*; *Antituberc.*—*Uses*: *Intern.*, w. tannin said to be better than ergotin for pulmon. or intest. hemorrhage; scrof., liver dis., &c.—*Extern.*, dress. wounds & ulc.; inject. into tuberc. joints (10% oil emuls.).—*Dose* 1–3 grains (0.06–0.2 Gm.).—*Max. D.* 3 grains (0.2 Gm.) single; 15 grains (1 Gm.) daily.—*Antid.*, emetics, sodium bicarbonate, potassium bromide or acetate, hydrated chloral, morphine (subcut.). Iodoform eezema (chronic poison.) treat by dipping frequently in water as hot as can be borne. Where wounds have been unfavorably affected by iodoform, remove the latter from the wound surface, & apply calcined magnes. —*Incomp.*, calomel, mercuric oxide, silver nitrate, tannin, balsam Peru (directly mixed).—*Caut.* Keep well stoppered.

*Note.*—This article is prepared with scrupulous care in order to enable it to meet the most exacting requirements.

**Iodoform Merck.—Light powder** (5)

A very fine yellow powd., much lighter than the ordinary powd., particularly adapted for making oints., suppos., &c., & as applic. to sores, wounds, &c.

*Note.*—This article is prepared with scrupulous care in order to enable it to meet the most exacting requirements.

**do. Merck. Heavy powder** (5)

Yellow, heavy powd.; the one most used in ordinary practice.

*Note.*—This article is prepared with scrupulous care in order to enable it to meet the most exacting requirements.

*Iodoform Albuminate.*—see **Iodoformogen**

**Iodoform Aromatized Merck.—Powd.—N. F.** (10)

(“Deodorized” Iodoform).—Aromatized by cumarin.

**Iodoform Bituminized Merck** (15)

Transl. scales; faint, tar-like odor.—*Action, Uses*, &c.: As of iodoform, pure.

*Iodoform Collodion.*—see **Collodion, Iodoform**

*Iodoform “Deodorized.”*—see **Iodoform Aromatized**

**Iodoformal** (54)

$\text{C}_6\text{H}_5\text{N.C}_2\text{H}_4\text{I.CHI}_3$ .—Obt. by action of ethyl iodide on iodoformin.—Lemon-yellow, odorl. powd.—*Sol.*, eas. boil. A.; diffc. cold A.; insol. W., E.—*Antisept.*—*Uses*: As of iodoform in purulent wounds, chron. ulcer of leg, chron. gonorr., &c.

*Iodoformhexamethylenamine.*—see **Iodoformin**

**Iodoformin** (20)

(Iodoformhexamethylenamine).—Compound of iodoform w. formin.—Contains 75% iodoform.—Wh. powd.—*Insol.* W., A., & E.—*Melt.* 178° C., w. decomp.—*Uses*: As of iodoform.

**Iodoformogen** (11)

(Iodoform Albuminate, Knoll).—Yellow, fine, dry, non-conglutinating powd.; abt. 3 times as voluminous as iodoform, more pervasive, & free from its odor.—Reported a convenient, economical, & efficient form of iodoform; liberates the latter, on contact w. wound surfaces, gradually & equably, hence persistent in action.

**Iodogallicin** (20)

(Bismuth Oxyiodomethylgallate).— $\text{COOCH}_3\text{—C}_6\text{H}_2(\text{OH})_3\text{.OBI(OH)}$ .—Dark-gray powd.—Siccative Antisept. like iodoform.

*Iodo-hemol.*—see **Hemol, Iodo-**

*Iodohydromol.*—see **Thymol Iodide**

**Iodol** (25)

(Tetraiodopyrrol Kalle; Pyrrol Tetriodide).—Fr. pyrrol by iodine in solution KI.— $\text{C}_4\text{I}_4\text{NH}$ .—V. light, fine, grayish-brown powd.—89% iodine.—*Sol.* 4900 W., 9 A., 1.5 E., 105

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



C. at 25° C.; fixed oils (U. S. P.).—Decomp. at 110–150° C.—Antisep.; Alter.—*Uses: Intern.*, syph., serof., angina pectoris, diab., & inst. of potassium iodide.—*Extern.*, 5–10% oint., chronic ulc., lupus, chancre, suppur. adenitis; erysip. (iodol 1, collodion 9), &c.; powd. or solut.: on muc. membr. as in ozena, tonsil, & inflam. condit. of larynx & trachea; tampons satur. w. A. (16), G. (34), & iodol (1) in gynecol.—*Dose* 5–15 grains (0.3–1 Gm.) p. d. in wafers.

### Iodolen (15)

Iodine-albumin compound; cont. 36% iodol.—Yellowish powd.—*Insol. W.*—*Uses: Extern.*, like iodoform in operative surgery, sores, purulent lymphadenitis, soft chancre, &c.

### Iodolin

(Quinoline Chloriodomethylchloride).— $C_9H_7NCH_3Cl_2$ .—Light-yellow scales or yellow powd.—*Sol. A.*; v. sl. *W.*—*Melt.*, abt. 112° C.—*Antisep.*—*Uses:* As of iodoform. Seldom used.

*Iodomethane*.—see **Methyl iodide**

*Iodomethylphenylpyrazolon*.—see **Mydrol**

### Iodonaphthol

(Diiodobetaphthol; Betaphtholdiiodide; Naphtholiaristol).—Fr. mixed solut. of iodine w. potass. iodide, betaphthol w. sod. carbonate & sod. hypochlorite.— $C_{10}H_6I_2O_2$ .—Yellowish-green powd.; odorl.; tastel.—Decomp. by heat, w. violet fumes.—*Sol. C.*; sl. in A., E.; *insol. W.*—*Antisep.*—*Uses:* As of thymol iodide.

*Iodo-orthotoluidine*.—see **Iodotoluidine, Ortho-**

*Iodoparatoluidine*.—see **Iodotoluidine, Para-**

*Iodophen*.—see **Nosophen**

*Iodophenacetin*.—see **Iodophenin**

### Iodophenin (30)

(Iodophenacetin).—React.-prod. of phenacetin in hydrochl. acid & iodine in potass. iodide.—25% iodine.— $C_{20}H_{25}I_3N_2O_4$ .—Brownish-black cryst.—*Sol. A.*; *W.* liberates iodine.—*Melt.* 130–131° C., with decomposition.—*Antisep.*; solut. acts like iodine solut.—*Uses: Extern.*, like iodine.—*Intern.*, artic. rheum.—*Dose* 8 grains (0.5 Gm.).

*Iodophenol, Para*.—see **Paraiodophenol**

*Iodophenolphalein, Tetra*.—see **Nosophen**

*Iodophosphine*.—see **Phosphonium iodide**

### Iodopyrine (100)

(Antipyrine Iodide; Iodantipyrine).— $C_{11}H_{11}IN_2O$ .—Colorl. cryst.—*Sol. A.*, & hot *W.*—*Melt.* 160° C.—*Antipyr.*; *Anal.*; *Alter.*—*Uses:* Tuberculosis, typhoid fever, bronch. asthma, cephalal., migraine, & tertiary syphilis.—*Dose* 5–15 grains (0.3–1 Gm.).

*Iodoquinine Sulphate*.—see **Quinine Iodosulphate**

### Iodose

Comp. of iodine (10%) w. a nucleoprotein.—Reddish powd.—*Sol.* in alkal. intest. secretions;

*insol. gastric juice.*—*Uses:* Syph., rheumat., glandular enlargem., asthma, goiter, &c.—*Dose* 5–20 grains (0.3–1.3 Gm.).

*Iodosol*.—see **Thymol iodide**

*Iodotannin*.—see **Acid Iodotannic**

*Iodotheobromine*.—see **Theobromine & Sodium Iodosalicylate**

*Iodothymol*.—see **Thymol iodide**

### Iodothyryne (70)

(Thyroiodine).—Dry milk-sugar trituration of the active constituent of thyroid gland.—15 grains (1 Gm.) iodothyryne contain  $\frac{1}{20}$  grain (0.3 Mgrm.) iodine, & are equiv. to 15 grains (1 Gm.) fresh thyroid gland.—*Wh. powd.*—*Alter.*; *Discut.*—*Uses:* Goiter, corpulency, myxedema, psoriasis, eczema, menstrual disturb., menorrh., rachitis, &c.—*Doses:* 15–40 grains (1–2.5 Gm.) p. d. for adults; 5–15 grains (0.3–1 Gm.) p. d. for children.—*Max. D.* 30–60 grains (2–4 Gm.) p. d.

### Iodterpin

By direct union of terpin & iodine.—Dark-brown liq.—*Sol.*, eas. E., B., benzin, C.; 10 absol. A.—*Sp. Gr.* 1.19.—*Uses:* Instead of tinct. iodine, & mixed w. sterilized kaolin (1–20%) as dusting powd. instead of iodoform.

### Iodylin

(Bismuth Iodosalicylate).—Yellowish, odorl. powd.—*Antisep.*, *Vulnerary*.—*Uses:* As of iodoform, in form of 7.5% gauze, & as powd., &c.

### Ionone.—10% Solution

A ketone obtained fr. citral; the odorous principle of violets & orris root.— $C_{13}H_{20}O$ .—Alcoholic solut. cont'g 10% ionone.—*Uses:* Perfumery.

*Iosol*.—see **Thymol iodide**

### Iothion (22)

(Diiodohydroxypropane).— $(C_3H_5I_2(OH))$ .—Yellowish, oily, heavy liq.—*Sol.* 75–80 W., 20 G., 1.5 olive oil; all prop. in A., E., C., B., petrolatum & lanum; *insol. benzin*.—*Sp. Gr.* 2.1–2.5.—*Dermic.*—*Uses:* Syph., sycoosis, ecz., trichophytosis, inguinal lymphadenitis, gonorr., epididymitis, tuberc. of bone, &c.—*Appl.*, by inunct. in 10–50% oint.

*Iothymol*.—see **Thymol iodide**

*Ipecac.*—U. S. P.

(Ipecacuanha; Hippo).—Dried root of *Cephaelis (Uragoga) Ipecacuanha* (Brotero), A. Richard. Rubiaceae. (Rio, Brazilian, or Para ipecac), w. portion of stem not exceeding 7 Cm. in length.—*Carthagena ipecac* fr. *Cephaelis acuminata*, Karsten (or *Psychotria emetica*, Mutis).—*Habit.*: Brazil to Bolivia; cultiv. in India.—*Carthagena ipecac* fr. New Granada.—*Etymol.*: Brazilian "ipe," bark, "cau," plant, "cau," fragrant, & "uha," or "nia," radiant. Or, fr. Portuguese "i," small, "pe," on the roadside, "cau," herb, & "goene," emetic.—*Constit.*:

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; H=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



Emetine,  $C_{15}H_{21}NO_2$ ; cephaeline,  $C_{14}H_{19}NO_2$ ; ipecacuanhic acid; psyhotrime; choline; resin; sugar—*Carthagenia ipecac* contains chiefly cephaeline, w. emetin & ipecacuanhic acid.—*Emetic*, *Laxative*; *Antidysenteric*; *Diaphor.*; *Sternutat.*; *Cholag.*, *Hemostat.*; *Counter-Irritant*—*Uses*: Emetic in poisoning, cramp, &c.; bronch, coughs, pulmon hemorrhage, hiccough, whoop-cough, &c.—*Doses*:  $1\frac{1}{4}$ – $1\frac{1}{2}$  grain (0.015–0.043 Gm.) tonic; 5–20 grains (0.3–1.5 Gm.) emetic.—*Alcoh. extr.*  $1\frac{1}{4}$ – $1\frac{1}{2}$  grain (0.008–0.015 Gm.) expector.;  $1\frac{1}{2}$ –2  $\frac{1}{2}$  grains (0.1–0.15 Gm.) emetic.—*Fld. extr.* 2–5  $\mathfrak{M}$  (0.12–0.30° C.) expect.; 15–45  $\mathfrak{M}$  (1–3 Ce.) emetic.—*Hydro-alcoh. extr.*,  $1\frac{1}{4}$ – $1\frac{1}{2}$  grain (0.008–0.015 Gm.) expector.;  $1\frac{1}{2}$ –2  $\frac{1}{2}$  grains (0.1–0.15 Gm.) emetic.—*Tinct.*, 10–20  $\mathfrak{M}$  (0.6–1.3 Ce.) as expector

**Ipecac De-emetized** (20

Ipecac root freed fr. its emetic principles (emetin & cephaeline), & containing only ipecacuanha-tannic acid.—Excellent antidysenteric, perfectly free fr. the depressing action commonly exhibited by ipecac. Employed in India & the German colonies w. great success.—*Doses*: 20 grains (1.3 Gm.) every 12 hrs.; in severe cases, every 6–8 hrs.—*Alcoh. extr.*, 4–8 grains (0.25–0.5 Gm.) gradually increased, as astring. in tropical diarrh.—*Fld. extr.*, 20  $\mathfrak{M}$  (1.3 Ce.) every 12 hrs. in dysentery.

*Ipecac, Goanese*.—see **Naregamia**

*Ipecac & Opium, Powder*.—see **Dover's Powder**

**Ipé-tabaco**

Wood of *Tecoma Ipé*, Mart. Bignoniaceae.—*Habit.*: Brazil.—*Etymol.*: "Ipé-tabaco" is the Brazilian name of the plant.—*Constit.*: Chrysophanic acid.—*Uses*: In lichen; tetter.

**Ipomein**

Glucoside fr. root *Ipomœa pandurata*, G. F. W. Meyer (fr. *fastigiata*, Sweet).— $C_{78}H_{132}O_{36}$ .—*Sol.* A., acetic acid; insol. E., C.

*Ipomœa Jalapa*.—see **Jalap**

**Ipomœa Turpethum**

(Turpeth Root).—Root of *Ipomœa Turpethum*, R. Brown. Convolvulaceae.—*Habit.*: East Indies.—*Etymol.*: Fr. Arab. "turbid," the name of the mercurial depurative of the Arabian physicians. "Ipomœa," fr. Grk. "ips," "ipos," a worm, bindweed, & "homoios," like, referring to its twining (worm-like) habit.—*Constit.*: Volat. oil; jalapin; resin (turpethin).—*Uses*: Purgat.—*Dose* 15–60 grains (1–4 Gm.) in powd.

**Iridin Merck.**—Pure (50

(Irisin).—Resinoid fr. rhizome *Iris versicolor*, L.; must not be confounded w. Tiemann-Lairé's glucoside, also named iridin, fr. *Iris versicolor*.—Brownish powd.—*Sol.* A.—*Cholag.*; *Cath.*; *Emetic*; *Diuret.*—*Uses*: Constip., amenor., & torpid liver; especially as a stimulant of biliary secretion.—*Dose* 1–3 grains (0.06–0.2 Gm.) in pills, at night, w. an equal weight oxgall.

**Iridium Merck.**—Fused or rods (4750

*Etymol.* Discovered in 1804 by Smithson-Tenmant, & named for the goddess of the rainbow, Iris.—*Metal.*—Fr. Wh., lusterl., steel-like metal of the platinum group. Sp. Gr. 22.7; heaviest of all the metals.—*Melt.* 1950–2500° C

**do. Merck.**—Powder (4000

(Iridium Black).—Dark powd.—*Sol.*, nitrohydrochloric acid.—When alloyed w. platinum is particularly resistant to chemical agents, hence used in manufacturing industry for making vessels employed in chemical operations.

**Iridium Bromide Merck** (2000

(Iridium Tetrabromide, Iridic Bromide).— $\text{IrBr}_4$ .—Deliq., brownish powd.—*Sol.* W., A.

**Iridium Chloride Merck** (2000

(Iridium Tetrachloride).— $\text{IrCl}_4$ .—Brownish-black, hygro. mass.—*Sol.*, eas. in W.

*Iridium-Osmium Alloy*.—see **Osmium-Iridium Alloy**

**Iridium Oxide Merck** (1850

(Iridium Sesquioxide; Iridoiridic Oxide).— $\text{Ir}_2\text{O}_3$ .—Dark powd.—*Sol.*, sl. in conc. HCl.

*Iridium Sesquioxide*.—see **Iridium Oxide**

*Iridium Tetrabromide*.—see **Iridium Bromide**

*Iridium Tetrachloride*.—see **Iridium Chloride**

**Iridium & Ammonium Bromide Merck** (2250

(Iridium Ammonium Sesquibromide; Ammonio-iridibromide).— $\text{Ir}_2\text{Br}_6 \cdot 6\text{NH}_4\text{Br} + \text{H}_2\text{O}$ .—Green, cryst. powd.—*Sol.* W.

**Iridium & Potassium Chloride Merck** (1250

(Potassium Iridichloride; Potassium Chloriridate).— $\text{IrCl}_4 \cdot 2\text{KCl}$ .—Dark-red cryst.—*Sol.*, hot W.—*Uses*: Techn., black pigment for porcelain.

**Iridium & Sodium Chloride Merck.**—Cryst. (1250

(Sodium Iridichloride or Chloriridate).— $\text{IrCl}_4 \cdot 2\text{NaCl} + 6\text{H}_2\text{O}$ .—Brownish-black cryst.—*Sol.* W.

*Iridoiridic Oxide*.—see **Iridium Oxide**

**Iris**

(Blue Flag; Flag Lily; Poison Flag; Water Flag).—Rhizome & roots of *Iris versicolor*, L. Iridaceae.—*Habit.*: North America.—*Etymol.*: Fr. Grk. "iris," rainbow, referring to the varied colors of the flower. Lat. "versicolor," variously colored.—*Constit.*: Iridin (resinoid); camphoraceous substance; gum; tannin; sugar; oil.—*Cholagogue*; *Cathart.*; *Diuret.*; *Emet.*; *Alter.*—*Uses*: Jaundice, liver diseases, constipation, dropsy; large doses emetic.—*Doses*: 5–30 grains (0.3–2 Gm.).—*Alcoh. extr.*, 1–6 grains (0.06–0.36 Gm.).—*Fld. extr.*, 5–40  $\mathfrak{M}$  (0.3–2.5 Ce.).

**Iris Florentina**

(Orris; White Flag).—Rhizome of *Iris florentina*, L. Iridaceae.—*Habit.*: Northern Italy (near Florence); Germany; France.—*Etymol.*: Fr. Grk. "iris," rainbow, referring to the varied

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



colors of the flower. "Florentina" refers to its habitat, Florence.—Peeled pieces are abt. 2-4 in. (50-100 Mm.) long,  $\frac{1}{2}$ -1 in. (12-25 Mm.) thick, flatish, whitish or whitish-yellow; short fracture; violet-like odor; mealy, bitter, acid taste.—*Constit.*: Ionone; resin; starch; volat. oil; tannin.—*Stim.*: Diuret.; Masticatory for teething infants.—*Uses*: *Techn.*, in perfumes & cosmetics.

### Iris Paper

Wh. paper impregnated w. hot, aqu. extract of Blue Flag (Iris versicolor).—*Uses*: Indicator (alkalies=green; neutral=blue; acids=red).

### Irisin.—see Iridin

### Iron Merck.—By Electrolysis (2)

*Etymol.*: Fr. Anglo-Sax. "iren," Goth. "iarn."—Metal; alm. perf. pure Fe.—*Uses*: Chem. anal.

#### do. Merck.—By Hydrogen.—Gray, 90% Fe.—U. S. P. (1)

(Reduced Iron; Quevenne's Iron).—Reduct. of oxide by hydrogen w. heat.—Not less than 90% Fe. (U. S. P.).—Iron-gray, lusterl. powd.; odorl.; tastel.—Chalyb.; Tonic.—*Uses*: Anemia, chlorosis, hyst., neural., serof., debil., &c.—*Dose* 1-5 grains (0.06-0.3 Gm.).—*Caut.* Keep well stop'd.

#### do. Merck.—By Hydrogen.—Gray, 80% Fe (1)

#### do. Merck.—By Hydrogen.—Black (1)

#### do. Merck.—Filings (1)

#### do. Merck.—Fine powder (1)

("Alcoholized" Iron, i. e., iron mechanically pulverized).—Gray powd.—*Uses*: Chlorosis, anemia, &c.—*Dose*  $1\frac{1}{2}$ -15 grains (0.1-1 Gm.) sev. t. p. d.

### Iron Merck.—Reagent.—By Hydrogen (3)

Fe.—Gray, lusterl., fine powd.; at least 90% Fe.—*Tests*: (*Solub. in Acids*; *C*; *Si*) 10 Gm. + 20 Ce.  $\text{H}_2\text{SO}_4$  (sp. gr. 1.84) + 200 Ce.  $\text{H}_2\text{O}$  — alm. compl. sol.; filter off any res., dry at  $100^\circ\text{C}$ ., & weigh — wt. not more than 0.05 Gm.—(*S*) 1 Gm. + 10 Ce.  $\text{HCl}$  (sp. gr. 1.124) + 10 Ce.  $\text{W}$ . — no  $\text{H}_2\text{S}$  evol. (should not darken lead-acetate paper within 10 sec.).—( $\text{Na}_2\text{CO}_3$ ) 5 Gm. + 50 Ce.  $\text{H}_2\text{O}$ ; shake; filter — filtrate should not render red litmus paper blue, & on evap. should leave no res.—(*N*) 10 Gm. + 20 Ce. conc.  $\text{H}_2\text{SO}_4$  (sp. gr. 1.84) + 200 $\frac{1}{2}$  Ce.  $\text{H}_2\text{O}$ ; heat; cool; add 100 Ce. solut.  $\text{NaOH}$  (sp. gr. 1.3); distil off abt. 50 Ce.; collect dist. in receiver cont. 20 Ce.  $\text{H}_2\text{O}$  w. 2-3 Ce. decinorm.  $\text{HCl}$ ; titrate w. decinorm.  $\text{KOH}$  w. methyl orange as indic. —  $\text{KOH}$  used up should at most be 0.2 Ce. less than quant. acid placed in receiver.—(*As*) 1 Gm. + 1 Gm.  $\text{KClO}_3$  + 10 Ce.  $\text{HCl}$  (sp. gr. 1.124); when react. subsides, heat till free  $\text{Cl}$  expelled; filter; add 15 Ce. solut.  $\text{SnCl}_2$  to 5 Ce. filtrate; no dark color within 1 hr.—*Uses*: Particularly in estim. nitric acid.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Iron Merck.—Reagent.—Powder.—98% Fe (3)**  
Fe.—Fine, heavy, gray powd.; metallic luster; at least 98% Fe.—*Tests*: (*Solub. in Acids*; *C*; *Si*; *S*) 10 Gm. + 20 Ce. conc.  $\text{H}_2\text{SO}_4$  (sp. gr. 1.84) + 200 Ce.  $\text{H}_2\text{O}$  — alm. compl. sol.; filter off res. dry at  $100^\circ\text{C}$ ., & weigh — wt. not more than 0.005 Gm. Gas evol. dur. solut. should not impart more than brownish color within 5 sec. to lead-acetate paper.—(*N*; *As*) as under iron-by-hydrogen.—(*Cu*; *Zn*; *Pb*) 1 Gm. + 25 Ce.  $\text{HNO}_3$  (sp. gr. 1.153); boil till dissolved; add 25 Ce.  $\text{H}_2\text{O}$  + 30 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96); filter — filtrate should not have a blue color, or be affected by aqu.  $\text{H}_2\text{S}$ .—*Uses*: Testing  $\text{Br}$  for  $\text{I}$ ; with  $\text{Zn}$  in determ.  $\text{HNO}_3$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

#### do. Merck.—Reagent.—Wire (2)

Fe.—Thin polished wire (piano wire).—*Uses*: For standardizing soluts.  $\text{KMnO}_4$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### Iron Acetate Merck.—Scales (4)

(Ferric Acetate).— $\text{Fe}_2(\text{C}_2\text{H}_3\text{O}_2)_6$ .—Brownish-red scales.—*Sol. W.*—*Uses*: Tonic; also techn.—*Dose* 3-10 grains (0.2-0.6 Gm.).

#### do. Merck.—Solution (1)

31% anhydrous ferric acetate,  $\text{Fe}_2(\text{C}_2\text{H}_3\text{O}_2)_6$ , & represents abt. 7.5% iron.—*V.* dark, reddish-brown liq.; sweetish, acid, styptic taste.—*Sp. Gr.* 1.16 =  $20^\circ\text{Bé}$ . at  $15^\circ\text{C}$ .—*Misc. W.*—Tonic; Chalyb.; Astring.—*Uses*: Anemia, chlorosis, & during convalesc. fr. wasting dis.—*Dose* 2-10  $\text{m}$  (0.12-0.6 Ce.).—*Caut.* Keep dark & well stop'd.

#### do. Merck.—Solution, Sp. Gr. 1.145 = $18.5^\circ\text{Bé}$ . (1)

#### do. Merck.—Solution, Sp. Gr. 1.138 = $17.5^\circ\text{Bé}$ . (1)

### Iron Acetate Merck.—Basic (3)

(Basic Ferric Acetate).— $\text{Fe}_2(\text{OH})(\text{C}_2\text{H}_3\text{O}_2)_4$ .—Red powd.—*Sol.*, v. sl.  $\text{W}$ .—*Uses*: Dyeing.

#### do. Merck.—Solution (1)

4.8-5% iron.—*Sp. Gr.* 1.087 to 1.091 =  $12^\circ\text{Bé}$ .—Reddish-brown liq.—*Sol. W.*—Astring.; Tonic; Hemostat.—*Dose* 8-15  $\text{m}$  (0.5-1 Ce.) sev. t. p. d.—*Extern.*, as inject. & compress. in 1-2:100  $\text{W}$ .

### Iron Acetoformate Merck.—Ferric (15)

Brownish-red to yellowish-red powd.; saline taste.—*Sol. W*.

### Iron Albuminate Merck.—Powder (6)

(Ferric Albuminate).—Brown, v. stable powd.—*Sol. W.*—Tonic; Hematinic.—*Uses*: Chlorosis; Japanese remedy in beriberi.—*Dose* 3-10 grains (0.2-0.6 Gm.).

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Iron Albuminate Merck.**—Scales (3)  
(Ferrie Albuminate).—5% Fe. — Brown scales.—*Sol.* W.—Tonic; Hematinic.—*Uses*: v. assimilable iron prep.; not acid, astring., or injur. to teeth.—*Dose* 3–10 grains (0.2–2.5 Gm.).

**do.**—Solution (1)  
Clear, brown liq.—0.4% Fe.—Tonic; Hematinic.—*Uses*: Anemia, chlorosis, & o. affections where an easily assimilated iron prep. is required.—*Dose* 30–60 ℥ (2–4 Ce.).

**do.**—Solution.—N. F.  
Approx. 0.6% Fe.—*Uses & Doses*: As of preceding.

**Iron Albuminate Peptonized Merck** (8)  
(Peptonized Ferrie Albuminate).—Light-brown powd.—*Sol.* W.—*Dose* 3–10 grains (0.2–0.6 Gm.).

**Iron Albuminate Saccharated Merck** (5)  
(Saccharated Ferrie Albuminate).—Iron albuminate & sacchar. ferrie oxide.—Reddish-brown powd.—*Sol.* W.—*Dose* 5–20 grains (0.3–1.3 Gm.).

**Iron Albuminate with Sodium Citrate Merck.**—Scales (5)  
(Ferrie Albuminate w. Sodium Citrate).—Brown scales.—*Sol.* W.

**Iron Alcoholized.**—see **Iron, Fine Powder**

**Iron Alginate**  
(Alginoid Iron).—Fr. sod. alginate & FeCl<sub>3</sub>.—C<sub>76</sub>H<sub>77</sub>N<sub>2</sub>O<sub>22</sub>Fe<sub>3</sub>.—Brown, tastel. powd.; abt. 11% Fe.—*Sol.*, ammonia.—Hematinic.—*Dose* 3–15 grains (0.2–1 Gm.).—Decomp. in intestines.

**Iron Ammoniated.**—see **Ammonium Chloride, Ferrated**

**Iron Ammoniochloride.**—see **Ammonium Chloride, Ferrated**

**Iron Anisate Merck** (55)  
(Ferrie Anisate).—Reddish-brown powd.; odor of aniseed.—*Insol.* W.

**Iron Arsenate Merck** (3)  
(Ferrous Arsenate).—Fe<sub>3</sub>(AsO<sub>4</sub>)<sub>2</sub>+6H<sub>2</sub>O(?).—Green, amorph. powd.—*Sol.*, dil. hydrochl. acid.—Hemat.; Alter.—*Uses*: Chronic skin dis.; ecz., impet., lepra, psoria., cancer, lupus, &c.—*Dose* 1/10–1/3 grain (0.004–0.008 Gm.).

**Iron Arsenite Merck** (3)  
(Ferrie Arsenite).—4Fe<sub>2</sub>O<sub>3</sub>.As<sub>2</sub>O<sub>3</sub>+5H<sub>2</sub>O(?).—Brownish-yellow powd.—*Sol.*, in acids; insol. W.

**Iron Arsenite with Ammonium Citrate Merck** (4)  
(Ferrous Arsenite w. Ammonium Citrate).—Green scales.—*Sol.*, v. eas. W.—1.4% arsenic trioxide, & 15–18% iron.—Hematinic.—*Uses*: Particularly indicated in anemia complicated w. malaria; also in pernicious anemia, & especially in pellagra.—*Dose* 1/2–1 1/6 grains (0.03–0.07 Gm.).—*Inf.*, subcut., in malaria in children, 1/2 grain (0.03 Gm.) dissolved in 15 ℥ (1 Ce.)

water, every 2–3 days; in pellagra, a like dose is injected daily at first, then every other day. The injections should be made in the gluteal region in order to avoid unpleasant by-effects.

**Iron Benzoate Merck.**—Solub. in Cod-liver Oil (5)  
(Ferrie Benzoate; Hydrated Ferrie Benzoate).—Fe<sub>3</sub>(C<sub>7</sub>H<sub>5</sub>O<sub>2</sub>)<sub>3</sub>+aq.—Brown powd.; 25% ferrie oxide.—*Sol.*, mixt. 80 cod-liver oil & 20 E.; slowly in warm E. & cod-liver oil.—*Dose* 1 1/2–3 grains (0.1–0.2 Gm.).

**Iron Bichromate.**—see **Iron Dichromate**

**Iron Bromide Merck.**—Ferric (4)  
(Ferrie Bromide; Iron Tri- or Sesqui-bromide).—Fe<sub>3</sub>Br<sub>3</sub> or FeBr<sub>3</sub>.—Dark-red, deliques. cryst.—*Sol.*, eas. W., E., & A.—*Uses*: Scrofula, amenor., phthisis, leucor., glandular enlargem., &c.; exhibits in high degree the bromine action.—*Dose* 1/3–1 grain (0.02–0.06 Gm.) several t. p. d.—*Mar. D.* 1 1/2 grains (0.1 Gm.) single; 8 grains (0.5 Gm.) daily.

**do.** Merck.—Saccharated (3)  
Ferrie bromide & sacchar. ferrie oxide.—Deliq., reddish-brown powd.—*Sol.* W.—*Uses*: As the preceding.—*Dose* 3–15 grains (0.2–1 Gm.) several t. p. d.—*Caut.* Keep dry, fr. air.

**Iron Bromide Merck.**—Ferrous (2)  
(Ferrous Bromide).—FeBr<sub>2</sub>+6H<sub>2</sub>O.—Reddish cryst. powd.—*Sol.* W., A.—*Uses*: Scrof., amenor., phthisis, leucor., & glandular enlargem.—*Dose* 1–5 grains (0.06–0.3 Gm.) several t. p. d.—*Caut.* Keep well stoppered.

**Iron Bromiodide Merck** (18)  
Ferrie bromide & ferrie iodide.—Deliq., brown powd.—*Sol.* W. with part. decomp.—Alter.; Tonic; Chalyb.—*Dose* 1/2–2 grains (0.03–0.12 Gm.).—*Caut.* Keep dry, fr. air.

**Iron Cacodylate Merck** (15)  
(Ferrie Cacodylate).—Fe([CH<sub>3</sub>AsO<sub>2</sub>)<sub>3</sub>.—Grayish-yellow powd.—*Sol.*, in W.—Alter.; Anti-chlorot.—*Uses*: Anemia, chlorosis, various types of lymphadenitis & leukemia in which arsenic is indicated.—*Dose* 1–5 grains (0.06–0.3 Gm.) in aqu. solut. per day; *subcut.*, 1/2–1 1/2 grains (0.03–0.1 Gm.) per day.

**Iron Camphorate Merck** (35)  
(Ferrie Camphorate).—Yellowish-red, voluminous powd.—*Insol.* in usual solvents.—*Uses*: Chlorosis.—*Dose* 1 1/2–3 grains (0.1–0.2 Gm.) several t. p. d. in pills.

**Iron Carbazotate.**—see **Iron Picrate**

**Iron Carbolate.**—see **Iron Phenate**

**“Iron Carbonate Precipitated.”**—see **Iron Oxide Brown**

**Iron Carbonate Merck.**—Green (1)  
(Green Ferrous Carbonate).—FeCO<sub>3</sub> mixed w. ferrie oxide.—Green lumps or powd.; turn red

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



on expos. to air.—*Sol.*, in dil. acids; insol. W.—Chalybeate.—*Dose* 5–15 grains (0.3–1 Gm.).—*Caut.* Keep well stoppered.

### Iron Carbonate Merck.—Effervescent (3)

(Effervescent Ferrous Carbonate).—Yellow gran's, variable comp.—*Sol.* W., with effervesc.—*Uses*: Mild chalyb.; for manuf. ferruginous mineral waters.—*Dose* 30 grains (2 Gm.).

### do. Merck.—Saccharated (1)

Fresh. precip. ferrous carbonate protected fr. oxid'n by sugar.—15% ferrous carbonate.—Greenish-brown, sweet powd.—*Sol.* W.—Chalyb.; Tonic.—*Dose* 5–30 grains (0.3–2 Gm.).

### Iron Chlorhydrophosphate Merck.—Dry (8)

Fr. iron phosphate, by hydrochloric acid.—Yellow powd.; odor of hydrochl. acid.—*Sol.* W.—*Uses*: As of iron phosphate.

### Iron Chloride Merck.—Ferric.—Cryst. (1)

(Normal Ferric Chloride; Iron Trichloride, Perchloride, or Sesquichloride).— $\text{FeCl}_3 + 6\text{H}_2\text{O}$ .—Not less than 22% Fe (U. S. P.).—V. deliq., orange-yellow, cryst., acid mass; astring., chalyb. taste.—*Sol.* W., A., & E. + A.—Styptic; Tonic; Astring.—*Uses*: *Extern.*, in solut. occasionally as styptic & caustic (styptic collodion, 1:9); usually, however, in form of solut. iron chloride; also pharmaceutical, & techn. in photoengraving.

### do. Merck.—Sublimed, anhydrous (3)

(Flores Martis).— $\text{FeCl}_3$ .—Sm. cryst.—*Sol.* W., A.

### do. Merck.—Solution.—U. S. P. (1)

29% anhydrous ferric chloride ( $\text{FeCl}_3$ ) & represents 10% iron.—Reddish-brown liq.; acid, styptic taste.—Sp. Gr. 1.280–1.290 at 25° C., U. S. P.—*Misc.* W., A.—Astring.; Tonic; Styptic.—*Uses*: Chlorosis, anemia & wasting dis.; us'y tincture. Styptic in post-partum hemorrhage; 1 dr. (4 Ce.) to 1 oz. (30 Ce.) to 1 pint (500 Ce.) W. & injected; brush application in diphtheria (1:1 W.); sweating feet (3:1 G.); enema (1:200); also as hemostat. (diluted w. W.) in nosebleed, wash, &c.—*Dose* 2–10  $\text{m}$  (0.12–0.6 Ce.).

### Iron Chloride Merck.—Ferric.—Reagent (1)

$\text{FeCl}_3 + 6\text{H}_2\text{O}$ .—Yellow, cryst. lumps; v. deliquesce. in air.—*Sol.*, eas. W., A., & mixt. A. w. E.—Solut's. acid to litmus paper.—*Tests*: (*Basic Salt*; *Subst. Diff. Sol. in H<sub>2</sub>O*) 10 Gm. compl. sol. in 10 Ce.  $\text{H}_2\text{O}$ ; solut. perf. clear.—(*HCl*; *Cl*) a: place a few Ce. 1:1 solut. in watch-glass & bring over it a glass rod moist. w.  $\text{NH}_4\text{OH}$ —no cloud should form; b: into neck of a flask cont. solut.  $\text{FeCl}_3$  introd. paper moist. w. zine iodide-starch solut.—paper should not acquire blue color within 2 min.—(1s) 1 Ce. 1:1 solut.  $\text{FeCl}_3$  + 3 Ce. solut.  $\text{SnCl}_2$ —no darker color within 1 hr.—(*Ferrous Salt*) to 1:20 aq. solut. add 1 Ce.  $\text{HCl}$  (sp. gr. 1.124) + few drops  $\text{K}_3\text{Fe}(\text{CN})_6$ —no blue color.—(*Cu*; *HNO*<sub>3</sub> & o. *Impur.* [*Alkali Salts*; *Ca*]) 20 Ce. 1:1 solut. + 100 Ce.  $\text{H}_2\text{O}$  + 25

Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96); filter; a: evap. 50 Ce. filtrate & ignite—wt. of res. not more than 0.001 Gm.; b: 2 Ce. filtrate + 2 Ce. conc.  $\text{H}_2\text{SO}_4$ ; overlay w. 1 Ce. solut.  $\text{Fe}_2\text{SO}_4$ —no brown color zone; c: 20 Ce. filtrate +  $\text{C}_2\text{H}_4\text{O}_2$  +  $\text{K}_3\text{Fe}(\text{CN})_6$ —no react.—( $\text{H}_2\text{SO}_4$ ) 10 Gm. + 100 Ce.  $\text{H}_2\text{O}$  + 25 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96); filter; filtrate +  $\text{C}_2\text{H}_4\text{O}_2$  + solut.  $\text{BaCl}_2$ —no ppt. ( $\text{BaSO}_4$ ) within 12 hrs.—*Uses*: Detect. thiocyanic, ferrocyanic, salicylic, & tannic acids; prepar. organic acids & decomp. earthy phosphates.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### do. Merck.—Reagent.—Solution (1)

Clear, deep yellowish-brown liq.; 10% Fe = 29%  $\text{FeCl}_3$ .—Sp. Gr. 1.280–1.282.—*Tests*: As under iron chloride, ferric, using, however, 3 Ce. solut. inst. of 1 Gm.  $\text{FeCl}_3$ .—*Uses*: As of preceding.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### Iron Chloride Merck.—Ferrous.—Pure, dry (2)

(Ferrous Chloride; Iron Dichloride or Protochloride).— $\text{FeCl}_2$  + aq.—Greenish-white, cryst. powd.—*Sol.* W.—*Uses*: *Extern.*, astring., gargle, 2–5%.—*Intern.*, chalyb.—*Techn.*, as mordant in printing fabrics, in dyeing, & in metallurgy for extract. copper.—*Dose* 1–3 grains (0.06–0.2 Gm.).

### do. —Solution

10% iron.—Clear, greenish liq.—Sp. Gr. 1.255 = 30° Bé., at 15° C.—Tonic; Astring.; Styp.—*Uses*: Anemia, chlorosis, &c.—*Dose* 5–15  $\text{m}$  (0.3–1 Ce.) several t. p. d. in aq. or alcoh. solut.—*Caut.* Keep in bright daylight.

### do. —Solution.—N. F.

Cont. abt. 2%  $\text{FeCl}_2$ .

### Iron Chloride Merck.—Ferrous.—Reagent (1)

$\text{FeCl}_2 + 4\text{H}_2\text{O}$ .—Pale-green, hygrosc. powd.—*Sol.* 1 W. acidul. w. few drops  $\text{HCl}$ . A.—*Tests*: (*Oxychloride*) 1 Gm. + 1 Ce. W. + 2–3 drops  $\text{HCl}$  (sp. gr. 1.124)—solut. green or pale-green, but no yellowish-green tint; add 5 Ce. aq.  $\text{H}_2\text{S}$ —only v. sl. turb. (separ. of S).—( $\text{H}_2\text{SO}_4$ ; *Cu*; *Alkalies*) 5 Gm. + 10 Ce.  $\text{H}_2\text{O}$  + 5 Ce.  $\text{HNO}_3$  (sp. gr. 1.3); boil; add  $\text{H}_2\text{O}$  to 120 Ce.; add 20 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96); filter; a: evap. 50 Ce. filtrate & ignite—wt. of res. not more than 0.001 Gm.; b: to 20 Ce. filtrate add  $\text{C}_2\text{H}_4\text{O}_2$  + solut.  $\text{Ba}(\text{NO}_3)_2$ —no react.; add  $\text{K}_3\text{Fe}(\text{CN})_6$ —no react.—(1s) 1 Gm. + 1 Ce.  $\text{H}_2\text{O}$  + few drops  $\text{HCl}$  + 3 Ce. solut.  $\text{SnCl}_2$ —no dark color within 1 hr.—*Uses*: Reducer; in gasometric determ. nitrates; determ.  $\text{HNO}_3$ .

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaicol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Iron Chromate Acid*—see **Iron Dichromate**

**Iron Chromate Merck.**—Liquid (1)  
(Ferric chromate,  $\text{Fe}_2(\text{Cr}_2\text{O}_7)_3$ , w. W.). Dark-brown liq. *Misc.* W.; not decomp. by boiling.

**Iron Citrate Merck.**—Scales (1)  
(Ferric Citrate).—Appr.  $\text{Fe}_2(\text{C}_6\text{H}_5\text{O}_7)_3 \cdot 6\text{H}_2\text{O}$ .  
Not less than 16%  $\text{Fe}$  (U. S. P.). Reddish-brown scales.—*Sol.*, slowly but completely in W.; at 25° C.; eas. sol. hot W.; insol. A.—*Tonic*; *Astring.*—*Uses*: Anemia & chlorosis.—*Dose* 3–10 grains (0.2–0.6 Gm.).—*Caut.* Keep. fr. light.

**do. Merck.**—Powder (1)  
*Uses*: As of preceding

**do. Merck.**—Effervescent, white (1)  
Mixt. iron citrate w. an acid & carbonate.—Grayish-white granules.—*Sol.* W., with effervescence.—*Uses*: Pleas. chalyb.

**do. Merck.**—Effervescent, yellow (1)  
Mixt. iron citrate, tartaric acid, & a carbonate.—Drab-yellow granules.—*Sol.* W., with turbid & effervescence.—*Uses*: Pleas. Chalyb.—*Dose* 5–20 grains (0.3–1.3 Gm.).—*Caut.* Sensitive to light; keep in dark bot.

**Iron Citro-iodide.**—Syrup.—*N. F.*  
(Tasteless Syrup of Iron Iodide).—Aht. 6% ferric iodide & 8.5% potass. citrate.—*Alter.*; *Tonic*.—*Uses*: Scrof., tuberculosis, chronic rheum., chlorosis, persistent anemia, &c.—*Dose* 10–30 ℥ (0.6–2 Cc.).

*Iron "Cyanide."*—see **Iron Ferrocyanide**

**Iron Dialyzed Merck.**—Solution (1)  
(Solution of Basic Ferric Oxychloride).—Fr. solut. ferric chloride w. amm.; or, fr. supersat. hydrochloric solut. ferric hydroxide by dialyzing.— $\text{Fe}_2\text{Cl}_6 \cdot 8\text{Fe}(\text{OH})_3$ .—Dark reddish liq.—5%  $\text{Fe}_2\text{O}_3 = 3.5\%$   $\text{Fe}$ .—*Misc.* W.—*Tonic*; *Astring.*; *Hemost.*—*Uses*: Arsenic antid.; also in chlorosis, anemia, hemorrhage, cholera, diar., gonorr., leucorr., wounds, &c.—*Dose* 10–30 ℥ (0.6–2 Cc.).

**do. Merck.**—Scales (16)  
Dark-brown scales.—*Dose*  $\frac{1}{2}$ –10 grains (0.03–0.6 Gm.).

*Iron Dichloride.*—see **Iron Chloride, Ferrous**

**Iron Dichromate Merck** (3)  
(Ferric Bichromate; Acid Iron Chromate).— $\text{Fe}_2(\text{Cr}_2\text{O}_7)_3$ .—Fr. aqu. chromic acid & moist ferric hydroxide w. heat.—Reddish-brown granules.—*Sol.* W.—*Uses*: *Techn.*, w. acacia & glue as water- & oil-color, & w. water-glass as pigment for cement paint; also mixed w. ultramarine as green pigment.

*Iron Ethiops.*—see **Iron Oxide, Black**

**Iron Ferrocyanide Merck.**—Pure, insoluble (1)  
(Ferric Ferrocyanide; Prussian, or Berlin, Blue; Insoluble Iron "Cyanide").—Fr. ferric salts, w. potass.ferrocyanide.— $\text{Fe}_4\text{Fe}_3(\text{CN}_6)_3$ .—Dark-blue powd.

or lump.—*Sol.* in aqu. solut. oxalic acid; insol. W. & HCl acid.—*Tonic*, *Antiper.*, *Cholag.*—*Uses*: Said to act well in intern. & remitt. fev. where quinine fails.—*Techn.*, in more or less pure form as Prussian, Berlin, Paris, or Mineral Blue, in water- or oil-colors, & printing fabrics; dissolved in oxalic acid solut. as ink & wash-blue.—*Dose* 2–5 grains (0.12–0.3 Gm.).

**Iron Ferrocyanide Merck.**—Pure, soluble (1)  
(Soluble Berlin, or Prussian, Blue, Soluble Iron "Cyanide").—Ferric ferrocyanide cont. some alkali-base. Mostly  $\text{KFe}(\text{CN})_6$ .—*Sol.* W.—*Uses*: *Techn.*, blue pigment & dye.

*Iron Filings.*—see **Iron**

**Iron Fluoride Merck** (5)  
(Ferrous Fluoride).— $\text{FeF}_2$ .—Wh. powd., or cryst.—*Sol.*, sl. W.—*Uses*: As of ammonium fluoride in hepatic hypertrophy.—*Dose*  $\frac{1}{20}$ – $\frac{1}{2}$  grain (0.003–0.03 Gm.) several t. p. d.

**Iron Formate Merck** (25)  
(Ferric Formate).— $\text{Fe}(\text{HCO}_2)_3$ .—Cryst., red powd.—*Sol.* W., & hot A.

**do.**—Solution  
5% ferric formate,  $\text{Fe}(\text{HCO}_2)_3 = 2.13\%$   $\text{Fe}_2\text{O}_3$ .—Reddish-brown liq.—*Sp. Gr.* 1.04,  $\angle 6^\circ 16'$ , at 15° C.—*Misc.* W.

*Iron Gallotannate.*—see **Iron Tannate**

**Iron Glycerinophosphate Merck.**—Scales or powder (5)  
(Ferric Glycerinophosphate).—Yellowish scales or powd.—*Sol.*, dil. A.; diffie. W.—*Uses*: Deficient nerve nutrition, neurasth., anemia, chlorosis, Addison's dis., phosphaturia, convalesce. fr. influenza, beriberi, &c.—*Dose* 2–5 grains (0.12–0.3 Gm.) 3 t. p. d. in cinnamon W.

**Iron Hippurate Merck** (30)  
(Ferric Hippurate).— $\text{Fe}(\text{C}_9\text{H}_8\text{NO}_3)_3$ .—Brown powd.—*Sol.*, v. eas. A.; insol. W.

**Iron Hydroxide Merck.**—Pure (1)  
(Ferric Hydroxide; Hydrated Iron Oxide; Hydrous Iron Peroxide; Hydrated Iron Sesquioxide; Crocus Martis).— $\text{Fe}(\text{OH})_3$ .—Brownish powd.—*Sol.*, hydrochl. acid. *Uses*: Mild chalybeate; when freshly precip. as antidote for arsenic.—*Techn.*, in rubber industry.—*Dose* 3–15 grains (0.2–1 Gm.) several t. p. d.

**Iron Hypophosphite Merck** (2)  
(Ferric Hypophosphite).— $\text{Fe}(\text{H}_2\text{PO}_2)_3$ .—Wh., or grayish-wh., powd.—*Sol.*, warm, conc. solut. of alkali citrate; sl. W.—*Uses*: Chalyb., us'y w. o. remed., in tuberculosis & rachitis.—*Dose* 5–10 grains (0.3–0.6 Gm.).—*Caut.* Keep dark & well stoppered.

**do. Merck.**—Highest Purity (14)  
Wh. powd.—*Caut.* Keep well stop'd & fr. light.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Iron Hypophosphite.**—Solution.—*N. F.*

Abt. 16.5% iron hypophos.—*Dose* 10–20 m (0.6–1.3 Cc.).

**Iron Iodate Merck.**—Ferric (16)

$\text{Fe}_2\text{O}_3 \cdot 2\text{I}_2\text{O}_5 + 8\text{H}_2\text{O}$ .—Redd. to brownish powd.; decomp. by heat.—*Alter.*; *Tonic.*—*Uses*: Scrof.—*Dose* 2–5 grains (0.12–0.3 Gm.) sev. t. p. d. in pills.

**Iron Iodide Merck** (5)

(Ferrous Iodide; Iron Protoiodide).— $\text{FeI}_2$  + abt.  $3\text{H}_2\text{O}$ .—Cryst., grayish-black masses.—*Sol.* W., with part. decomp.—*Alter.*; *Tonic.* Seldom used.—*Dose*  $\frac{1}{2}$ –3 grains (0.03–0.2 Gm.).

**do. Merck.**—Saccharated (5)

Abt. 20% ferrous iodide.—Yellowish-white, or grayish, hygrosc. powd.—*Sol.*, partly in W., with some decomp.—*Alter.*; *Tonic.*—*Uses*: Anemia, chlorosis, scrof., debil., &c.—*Dose* 2–15 grains (0.12–1 Gm.) several t. p. d.—*Caut.* Keep dark, cool, & well stoppered.

**do. Merck.**—Tasteless (10)

Tasteless ferrous iodide; contains potass. citrate.—Brown powd.—*Sol.*, hot W.—*Uses* & *Dose*: As of iron iodide.

**do. Merck.**—Syrup.—*U. S. P.* (1)

5% by wt. of ferrous iodide, or abt. 6.74 Gm. in 100 Cc.—*Sp. Gr.*, abt. 1.349 at 25° C.—*Alter.*; *Tonic.*—*Uses*: Scrof. affect., tuberculosis, leucocythemia, chlorosis, anemia, chronic rheum., &c.—*Dose* 15–30 m (1–2 Cc.).—*Caut.* Keep in sm., well-stoppered & filled bots.

**do.**—Solution.—*N. F.*

Cont. abt. 85%  $\text{FeI}_2$ .—*Dose* 2–5 m (0.12–0.3 Cc.).

**Iron Lactate Merck.**—Pure, cryst. or scales (1)

(Ferrous Lactate).— $\text{Fe}(\text{C}_3\text{H}_5\text{O}_3)_2 + 3\text{H}_2\text{O}$ .—Greenish-white cryst., in sm. crusts or transp., green scales.—*Sol.* 40 W.; 12 boil. W.; alkali citrate solut.—*Tonic.*; *Alter.*; *Chalyb.*—*Uses*: Chlorosis, anemia, &c., where iron indic.—*Dose* 1–5 grains (0.06–0.3 Gm.) several t. p. d.—*Caut.* Keep fr. air & light.

**do. Merck.**—Pure, powder, free fr.  $\text{H}_2\text{SO}_4$  (1)  
White, or greenish-white, powd.—Abt. 20% Fe.—*Sol.* W.—*Uses* & *Dose*: As of preceding.

**do. Merck.**—Powder (1)

Yellowish, or grayish-green, powd.

**Iron Lactoalbuminate Merck** (12)

(Ferrous Lactate with Ferric Albuminate).—Light-brown powd.—*Sol.*, partly in W.—*Uses*: *Chalyb.*, espec. for children.—*Dose* 1–5 grains (0.06–0.3 Gm.).

**Iron Lactocitrate Merck** (6)

(Ferrous Lactocitrate; Ferrous Lactate with Ferric Citrate).—Abt. 20% Fe.—Brownish powd.—*Sol.*, sl. in W.—*Uses* & *Dose*: As of iron citrate.

**Iron Lactophosphate Merck** (4)

Double salt of ferric phosphite & ferrous lactate.—56% ferric phosphate & 44% ferrous lactate.—Greenish-white powd.—*Sol.* W. with mineral acid.—*Uses*, *Dose*, &c.: As of iron lactate.

**Iron Malate Merck** (22)

(Ferric Malate).— $\text{Fe}_2(\text{C}_4\text{H}_4\text{O}_6)_3$ .—Brown, hygrosc. scales.—*Sol.* W., A.—*Tonic.*; *Astring.*—*Uses*: Mild chalyb.—*Caut.* Keep well stoppered.

**Iron Malate Crude.**—see **Extract Apple Ferrated****Iron Monomethylarsenate Merck** (55)

$\text{Fe}(\text{CH}_3\text{AsO}_3)_3$ .—Reddish-brown, lusterl. scales.—21.2% Fe, & 42.7% As.—*Sol.* 2 W.; insol. A., E.—*Hemat.*—*Uses*: Anemia, chlorosis, leucemia.—*Dose*  $\frac{1}{3}$ – $\frac{3}{4}$  grain (0.02–0.05 Gm.) in solut. or pill.

**Iron Monosulphide.**—see **Iron Sulphide****Iron Nitrate Merck.**—Ferric.—Cryst. (2)

$\text{Fe}(\text{NO}_3)_3 + 18\text{H}_2\text{O}$ .—Grayish-white cryst.—*Sol.* W.—*Melt.* 47.2° C.—*Uses*: *Techn.*, in aqu. solut.

**do. Merck.**—Solution.—33 $\frac{1}{3}$ % (1)

33 $\frac{1}{3}$ %  $\text{Fe}(\text{NO}_3)_3$  = abt. 7.5% Fe.—Dark-red liq.—*Sp. Gr.* 1.25 at 15° C.—*Misc. W.*—*Uses*:—*Techn.*, as mordant in dyeing & calico printing, weighting silk & dyeing it black, tanning, & manuf. Berlin blue.

**do.**—Solution

6.2% anhydrous ferric nitrate,  $\text{Fe}(\text{NO}_3)_3$  = 1.4% iron.—Clear, amber or reddish liq.—*Sp. Gr.* 1.050 at 15° C.—*Sol.* W., A.—*Astring.*; *Tonic.*—*Uses*: Chronic diar. & leucor.—*Dose* 10–15 m (0.6–1 Cc.) in W.

**Iron Nucleinate Merck** (75)

Yellow powd.—Insol. W. & A.

**Iron Oleate Merck.**—20% (4)

(Ferric Oleate).— $\text{Fe}(\text{C}_{18}\text{H}_{35}\text{O}_2)_3$ .—Brownish-red lumps.—*Sol.* E.—*Tonic.*—*Uses*: *Extern.*, in aqu. solut. (iron soap) on wounds, ulcers, &c.

**Iron Oxalate Merck.**—Ferric.—Scales (2)

(Normal Ferric Oxalate).— $\text{Fe}_2(\text{C}_2\text{O}_4)_3$ .—Greenish-yellow scales.—*Sol.* W.

**do. Merck.**—Powder (2)

Greenish-yellow powd.—*Sol.*, in solut. alkali oxalates; sl. in W.

**Iron Oxalate Merck.**—Ferrous (2)

$\text{FeC}_2\text{O}_4 + 2\text{H}_2\text{O}$ .—Pale-yellow, odorl., cryst. powd.—*Sol.*, cold hydrochl. & hot dil. sulphuric acids; insol. W.—*Tonic.*; *Alter.*—*Uses*: Anemia, chlorosis, &c.—*Techn.*, photo. developer for silver-bromide-gelatin plates.—*Dose* 2–6 grains (0.12–0.36 Gm.) twice daily, in pills.

**Iron Oxide Black Merck.**—Dry process (1)

(Ferrosoferric Oxide; Magnetic Iron Oxide; Iron Ethiops).— $\text{Fe}_3\text{O}_4(\text{OH})_2$ .—Reddish-black, amorph. powd.—*Sol.*, hydrochlor. acid.—*Hemat.*, &c.—*Dose* 2–10 grains (0.12–0.6 Gm.).

**do. Merck.**—Wet process (2)

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Iron Oxide Brown Merck.**—Commercial (1)  
 ("Iron Subcarbonate," or "Iron Carbonate Precipitated").—Contains ferrie carbonate,  $\text{FeCO}_3$ , with ferrie hydroxide,  $\text{Fe(OH)}_3$ , &  $\text{Fe(OH)}_2$ , in varying quantities.—Reddish-brown powd.—*Sol.*, dil. hydrochlor. acid; insol. W.—Mild chalybeate.—*Dose* 3–15 grains (0.2–1 Gm.).

**Iron Oxide Hydrated.**—see **Iron Hydroxide**

**Iron Oxide Magnetic.**—see **Iron Oxide, Black**

**Iron Oxide Red Merck.**—Anhydrous (1)  
 (Anhydrous Ferric Oxide; Iron [Ferric] Trioxide; Iron Sesquioxide; Crocus Martis Adstringens).—Fr. hydroxide by ignit.— $\text{Fe}_2\text{O}_3$ .—Dense, red powd.—*Sol.*, acids.—*Uses*: Obsol. in medicine.—*Techn.*, as polish. powd. for glass & metal, as pigment, in iron paints, & in manuf. of glass & pottery.

**do. Merck.**—Fr. Ferric Oxalate (5)  
 Fr. ferrie oxalate, by heat.—Reddish-brown powd.—*Sol.*, acids; insol. W.—*Uses*: *Techn.*, polishing-rouge.

**do. Merck.**—Saccharated.—Soluble.—Ph. G. iv. (1)  
 (Soluble Iron; Iron Saccharate; Iron Sugar).—Mixt. of sugar with ferrie saccharate,  $\text{C}_{12}\text{H}_{22}\text{O}_{11} \cdot (\text{Fe}_2\text{O}_3)_2 + \text{C}_{12}\text{H}_{22}\text{O}_{11} \cdot \text{Na}_2\text{O}$ .—Cont. at least 2.8% of met. iron.—Brown powd.—*Sol.* W.—*Uses*: Antid. for arsenic; in chlorosis, anemia, &c.—*Dose* 8–30 grains (0.5–2 Gm.).

**Iron Oxychloride, Solution.**—see **Iron Dialyzed**

**Iron Parannucleinate.**—see **Triferrin**

**Iron "Peptonate."**—see **Iron Peptonized**

**Iron Peptonized Merck.**—Powder (4)  
 (Iron "Peptonate"; Ferric "Peptonate").—5%  $\text{Fe}_2\text{O}_3$  w. peptone.—Yellowish-brown powd.—*Sol.* W.—*Uses*: Mild, eas. assimil. chalyb.—*Dose* 2–8 grains (0.12–0.5 Gm.).

**do. Merck.**—Scales (5)  
 Reddish-brown, deliq. scales.—25%  $\text{Fe}_2\text{O}_3$ .

**do. Merck.**—Saccharated (8)  
 Equal parts iron peptonized & sacchar. iron oxide.—Brown powd.—*Sol.* W.—*Uses*: As of iron peptonized, but in twice the dose.

**do.**—Solution.—N. F.  
 0.3% Fe.—Readily absorbed form of peptonized iron.—*Uses*: Anemia, chlorosis.—*Dose* 15–60 m (1–4 Cc.) several t. p. d. in milk, etc.

**Iron Perchloride.**—see **Iron Chloride Ferric**

**Iron Peroxide, Hydrous.**—see **Iron Hydroxide**

**Iron Persulphate.**—see **Iron Sulphate, Basic**

**Iron Phenate Merck** (8)  
 (Ferric Phenolate, or Carbolate; Phenol-Iron).—Variable comp.—Brownish-violet, deliq. pieces.—*Sol.* W.—*Caut.* Keep dry, fr. air.

**Iron Phenolsulphonate Merck** (2)  
 (Ferrous Sulphocarbolate; Iron Sulphophenate, or Phenolsulphonate).— $\text{Fe}_2\text{C}_6\text{H}_5\text{SO}_4 \cdot 2 + 7\text{H}_2\text{O}$ .—Sm., violet-gray cryst.—*Sol.* W.

**Iron Phosphate Merck.**—Ferric (1)  
 $\text{Fe}_2(\text{PO}_4)_2 + 8\text{H}_2\text{O}$ .—Yellowish-white powd.—*Sol.*, in acids.—*Uses*: *Extern.*, solution w. dil. phosph. acid, t. carious teeth, in which it is introduced on cotton; oint. (10–20%) in eczema.

**do. Merck.**—Ferric.—Soluble (1)  
 (Soluble Ferric Phosphate; Iron Phosphate with Sodium Citrate).—Transp., bright green scales; acid, saline taste; darkens in light.—12% Fe.—*Sol.* W.; insol. A.—Chalyb.; Astring.; Emmen.—*Uses*: Dyspep. & amenor.—*Dose* 5–10 grains (0.3–0.6 Gm.).—*Caut.* Keep fr. air & light.

**do.**—N. F.—Effervescent  
 (Effervescent Phosphate of Iron).—Iron phosphate w. sugar, sod. bicarb., & tartaric acid.—Fine, white powd.—*Sol.* W., with effervesc.—Tonic; Nerve Stim.; Chalyb.; Emmen.—*Uses*: Pleasant tonic, drink.—*Dose* 1–2 dr. (4–8 Gm.).

**Iron Phosphate Merck.**—Ferrous (1)  
 $\text{Fe}_3(\text{PO}_4)_2 + \text{H}_2\text{O}$  & oxide.—Grayish-blue powd.—*Sol.*, acids; insol. W.—*Caut.* Keep fr. light & air.

**do. Merck.**—B. P. (2)  
 $\text{Fe}_3(\text{PO}_4)_2 + 8\text{H}_2\text{O}$  with ferrie phosphate & some iron oxide (Ph. Brit.).—Blue powd.—*Sol.*, acids.—*Dose* 5–8 grains (0.3–0.5 Gm.) several t. p. d.

**Iron Phosphate Albuminated Merck** (3)  
 Yellowish-brown scales.—*Sol.* W.

**Iron Phosphate with Ammonium Citrate Merck** (2)  
 Greenish-yellow scales.—*Sol.*, hot W.—Tonic; Astring.; Emmen.; mild Chalyb.—*Uses*: As of o. iron salts, espec. in dyspep. & amenor.—*Dose* 2–15 grains (0.12–1 Gm.) several t. p. d.—*Caut.* Sensitive to light; keep dark & from air.

**Iron Phosphate with Sodium Citrate.**—see **Iron Phosphate, Soluble**

**Iron Phosphide Merck** (20)  
 (Ferrous Phosphide).— $\text{Fe}_2\text{P}$ .—Gray. lumps.—*Sol.*, hot nitric acid; insol. W.

**Iron Phosphocitrate Merck** (8)  
 (Ferric Phosphocitrate).—Brown scales.—*Sol.* W.—*Uses*, *Dose*, &c.: As of iron citrate.

**Iron Phosphosaccolactate.**—see **Carniferrin**

**Iron Picrate**  
 (Iron Picronitrate, or Carbazotate).—Comp. variable.—Greenish-yellow or reddish-brown, hygrosc. cryst.—*Sol.* W., but muddy.—Antiper.; Tonic.—*Dose*  $\frac{1}{4}$ –1 grain (0.015–0.06 Gm.).

**Iron Picronitrate.**—see **Iron Picrate**

**Iron Platinocyanide.**—see **Platinum & Iron Cyanide**

**Iron Protochloride.**—see **Iron Chloride, Ferrous**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Iron Protoiodide.*—see **Iron Iodide**

*Iron Protosulphide.*—see **Iron Sulphide**

**Iron Pyrophosphate Merck.**—Dry, powder (1)  
(Ferric Pyrophosphate).— $\text{Fe}_2(\text{P}_2\text{O}_7)_3$ .—Wh. powd.—*Sol.*, carbonated water, acids, & solut. of alkali citrates; alm. insol. W.—Mild agre. chalyb.—*Uses*: Chlorosis, &c.—*Dose* 2–5 grains (0.12–0.3 Gm.).—*Caut.* Keep in a dark place.

**do. Merck.**—Soluble, scales (1)

(Soluble Ferric Pyrophosphate; Iron Pyrophosphate with Sodium Citrate).—Apple-green, transp. scales; acidulous, saline taste.—10% Fe.—*Sol.* W.; insol. A.—Tonic; Emmen.; Astring.—*Uses*: Mild, agre., active chalyb. in chlorosis, anemia, debility, &c.—*Dose* 3–10 grains (0.2–0.6 Gm.); also given subcut.—*Caut.* Keep in dark.

**Iron Pyrophosphate Albuminated Merck** (13)

Light green scales.—*Sol.* W.—*Uses*, &c.: As of iron pyrophosphate.

**Iron Pyrophosphate with Ammonium Citrate Merck.**—Scales (2)

(Robiquet's Soluble Ferric Pyrophosphate; Ammonioferric Citrophosphate).—Light-green, transp. scales; sweetish, ferruginous taste.—*Sol.* W.—Tonic; Emmen.; Chalyb.—*Uses*: An agreeable ferrug. preparation that agrees well with the stomach.—*Dose* 5–10 grains (0.3–0.6 Gm.); subcut., 1–2½ grains (0.06–0.15 Gm.) dissolved in steril. W.—*Caut.* Keep in the dark.

**Iron Pyrophosphate with Ammonium & Sodium Citrates Merck** (4)

(Ferric Pyrophosphate with Ammonium & Sodium Citrates).—Light-green scales.—*Uses*, &c.: As of iron pyrophosphate with sodium citrate.—*Caut.* Keep in a dark place.

**Iron Pyrophosphate with Magnesium Citrate Merck.**—Scales (5)

(Ferric Pyrophosphate & Magnesium Citrate).—Light-green scales.—*Sol.* W.—*Uses*, &c.: As of iron pyrophosphate with sodium citrate.—*Caut.* Keep in a dark place.

**Iron Pyrophosphate with Potassium Citrate Merck** (2)

(Ferric Pyrophosphate & Potassium Citrate).—Light-green scales.—*Sol.* W.—*Uses*, &c.: As of iron pyrophosphate with sodium citrate.—*Subcut.*, like iron pyrophosphate with ammonium citrate.—*Caut.* Keep in a dark place.

*Iron, Querverne's.* } —see **Iron by Hydrogen**  
*Iron, Reduced.* }

**Iron Resinate Merck** (2)

(Ferric Resinate).—Reddish-brown powd.—*Sol.* E., benzin,  $\text{CS}_2$ , oil turp.; sl. A.; insol. W.

*Iron Rhodanide.*—see **Iron Sulphocyanate**

*Iron Saccharate.*—see **Iron Oxide Red Saccharated, Soluble**

**Iron Salicylate Merck** (3)

(Ferric Salicylate).—Violet-gray powd.—*Sol.*, sl. in W.—Tonic; Antisep.; Astring.; Antirheum.—*Uses*: Bleeding & o. wounds, diar., rheum., &c.—*Dose* 3–10 grains (0.2–0.6 Gm.), in pills.

*Iron Sesquibromide.*—see **Iron Bromide, Ferric**

*Iron Sesquichloride.*—see **Iron Chloride, Ferric**

*Iron Sesquioxide.*—see **Iron Oxide, Red**

*Iron Sesquioxide Hydrated.*—see **Iron Hydroxide**

*Iron Sesquisulphate.*—see **Iron Sulphate, Ferric**

**Iron Silicate Merck** (2)

(Ferric Silicate).—Reddish-brown, insol. powd.

**Iron Silicofluoride Merck.**—Pure (2)

(Ferrous Silicofluoride).— $\text{FeF}_2 \cdot \text{SiF}_4$ .—Yellowish white, cryst. powd.—Insol. W.

*Iron, Soluble.*—see **Iron Oxide Red Saccharated, Soluble**

**Iron Stearate Merck** (6)

(Ferric Stearate).— $\text{Fe}(\text{C}_{17}\text{H}_{35}\text{O}_2)_3$ .—Fr. potass. or sod. stearate w. solut. iron salt.—Light brown, insol. powd.

"*Iron Subcarbonate.*"—see **Iron Oxide Brown**

*Iron Sulphate.*—see **Iron Sulphate Basic**

**Iron Succinate Merck** (12)

(Ferric Succinate).— $\text{Fe}(\text{OH})\text{C}_4\text{H}_4\text{O}_4(?)$ .—Amorphous, reddish-brown powd.—*Sol.*, v. sl. in cold W.; eas. in acids.—Tonic; Alter.—*Uses*: Solvent biliary calculi.—*Dose* 10 grains (0.6 Gm.) grad. increased to 60 grains (4 Gm.) 3 t. p. d., after meals, best w. 10 drops chloroform.

*Iron Sugar.*—see **Iron Oxide Red Saccharated, Soluble**

**Iron Sulphate Merck.**—Basic.—Pure (1)

(Ferric Subsulphate; Iron Per-, or Sub-sulphate; Monsel's Salt).—Approx.:  $\text{Fe}_2\text{O}(\text{SO}_4)_3$ .—Yellow, hygrosc. powd.—*Sol.* W.—Astring.; Styp.—*Uses*: Intern., in gastric & intest. hemorrhage.—Extern., in chancre, &c.—*Dose* 2–5 grains (0.12–0.3 Gm.).—*Caut.* Keep dry, fr. air.

**do.**—Solution.—U. S. P. (1)

(Monsel's Solution; Solution Iron Persulphate).—Var. chem. comp.; not less than 13.57% Fe.—Dark, reddish-brown, str'ly styptic, acid liq.—Sp. Gr. 1.55 at 15° C. (abt. 1.548 at 25° C., U. S. P.).—*Misc.* W. A.—Styp.; Astring.; Alter.—*Uses*: Intern. & extern. hemorrhage, & in chancre.—*Dose* 2–10 M (0.12–0.6 Gm.).—N. P. Solution Iron Tersulphate must not be given when Solution Sub- or Per-sulphate is ordered!

**Iron Sulphate Merck.**—Ferric.—Pure (1)

(Normal Ferric Sulphate; Iron Tersulphate, or Sesquisulphate).— $\text{Fe}_2(\text{SO}_4)_3$ .—Grayish-wh powd.—*Sol.*, slowly in W.—*Uses*: Medicinal only in solut.; the latter is not made fr. the salt.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gala Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Iron Sulphate. Ferric. Solution. U. S. P.**

(Solution Iron Tersulphate).—Abt. 36% normal ferric sulphate,  $\text{Fe}_2(\text{SO}_4)_3$ , corresp. to not less than 10% Fe.—Dark, reddish-brown, strly styp liq.—Sp. Gr. 1.430–1.450 at 25° C.—*Misc.* W., A.—Astring.—Too irrit f general use.

**Iron Sulphate Merck.—Ferrous.—Pure (1)**

$\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ .—Large, bluish-green, effloresc. cryst.; odor; saline, astring taste.—Oxidize on expos. to moist. air; lose 38.87%  $\text{H}_2\text{O}$  on slowly heating to 115° C.—*Sol.* 1.8 W. (0.9 W. at 25° C., U. S. P.); 0.5 boil. W.; insol. A.—Tonic; Astring.—*Uses: Intern.*, anemia & chlorosis, especially w. tendency to hemorrhage; night-sw. or relax. of system.—*Extern.*, leucor., gleet, ecz., erysip., or chr. ophthal.—*Dose* 1–8 grains (0.06–0.5 Gm.).—*Inj.*, 5–25% aq. solut. in blenor.; 10–20% aq. solut. in hemorrhage & baths.—*Appl.*, as oint. (1:30).—*Caut.* Keep cool & dry.

**do. Merck.—Dried (1)**

Approx.:  $2\text{FeSO}_4 + 3\text{H}_2\text{O}$ .—Grayish-wh. powd.—*Sol.* W.—*Uses:* Best form for iron pills.—*Dose*  $\frac{1}{2}$ –3 grains (0.03–0.2 Gm.) several t. p. d.

**do. Merck.—Granulated.—Precipitated (1)**

By precip. conc. solut. ferrous sulphate w. alc.—Pale, bluish-green, cryst. powd.—*Sol.* W.—*Dose* 1–5 grains (0.06–0.3 Gm.).

**do.—Crude (1)**

(Copperas; Green Vitriol).—Greenish crystals, often dirty & rusty fr. oxid'n & effloresc.—*Sol.* 2 W.—*Uses:* Deodor., disinf.—*Techn.*, manuf. of iron salts, dyes; in dyeing & tanning; ink; reduction of indigo; photography, &c.—*Appl.*, for iron baths: 1 to  $1\frac{1}{2}$  oz. (abt. 30–45 Gm.).

**Iron Sulphate Merck.—Ferrous.—Reagent (1)**

$\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ .—Pale greenish-blue, monoclin. cryst.—*Sol.* 1.8 cold, & 0.5 boil., W.; insol. A., E.—*Tests:* (*Impur.* *Insol.* in  $\text{H}_2\text{O}$ ) 1:20 solut. freshly prep. w. boiled & cooled  $\text{H}_2\text{O}$  should be clear, & have greenish-yellow color.—(*Alkalies*) 5 Gm. + 100 Cc.  $\text{H}_2\text{O}$  + 5 Cc.  $\text{HNO}_3$  (sp. gr. 1.3); boil. few min.; add 15 Cc.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96); filter; evap. filtrate & ignite—wt. of res. not more than 0.001 Gm.—(*Cu; Zn*) 2 Gm. + 20 Cc.  $\text{H}_2\text{O}$  + 3 Cc.  $\text{HNO}_3$  (sp. gr. 1.3); boil; add 8 Cc.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96); filter; a: to 15 Cc. filtrate add few drops ( $\text{NH}_4$ )HS—no react.; b: to 20 Cc. filtrate add  $\text{C}_2\text{H}_3\text{O}_2 + \text{K}_4\text{Fe}(\text{CN})_6$ —no react.—*Uses:* Reducing agent in determ. arsenic acid & gold; determ. Hg, Zn, & potass. ferrieyanide; detect. cyanogen &  $\text{HNO}_3$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Iron Sulphide Merck.—Lumps, sticks, or granulated (1)**

(Ferrous Sulphide; Iron Monosulphide; Iron Protosulphide; Iron Sulphuret).— $\text{FeS}$ .—Dark-brown or black, metal-like pieces, sticks, or gran.

powd.—*Sol.*, in acids w. evol. of  $\text{H}_2\text{S}$ .—*Uses* Chiefly in chemical laboratories & metallurgical operations for prep.  $\text{H}_2\text{S}$ ; with magnesia as antidote in poisoning by metals, partic.  $\text{Hg}(\text{CN})_2$ .

**Iron Sulphide Merck.—Powder (1)**

By precip. solut. of ferrous salt w. alkali sulphide.— $\text{FeS}$ .—Greenish-black precip.; oxidizes rapidly on expos.—*Sol.*, in acids.—*Caut.* Keep well stoppered.

**Iron Sulphide Merck.—Reagent.—Lumps, sticks, & gran. (1)**

(Ferrous Sulphide).— $\text{FeS}$ .—Dark-gray or grayish-black, heavy, hard lumps.—*Sol.*, dil.  $\text{HCl}$  or  $\text{H}_2\text{SO}_4$  w. copious evol.  $\text{H}_2\text{S}$ .—*Uses:* Prepar.  $\text{H}_2\text{S}$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Iron Sulphocarbolate.—see Iron Phenolsulphonate**

**Iron Sulphocyanate Merck (12)**

(Ferric Sulphocyanide; Ferric, or Iron, Rhodanide).— $\text{Fe}(\text{SCN})_3$ .—Gran. powd.—*Sol.* W., A., E.

**Iron Sulphocyanide.—see Iron Sulphocyanate**

**Iron Sulphophenate.—see Iron Phenolsulphonate**

**Iron Sulphuret.—see Iron Sulphide**

**Iron Tannate Merck (4)**

(Ferric Tannate; Iron Gallotannate).— $\text{Fe}_2(\text{C}_{14}\text{H}_7\text{O}_9)(\text{OH})_3$ .—Dark-brown powd.—*Insol.* W.—Astring.; Tonic; Emmen.—*Uses: Intern.*, chlorosis, &c.—*Extern.*, ringworm in 2:10 oint.

**Iron Tartar.—see Iron & Potassium Tartrate, Ferrous**

**Iron Tartarized or Tartrated.—see Iron & Potassium Tartrate, Ferric**

**Iron Tartrate Merck.—Ferric.—Scales (5)**

$\text{Fe}_2(\text{C}_4\text{H}_4\text{O}_6)_3 + \text{H}_2\text{O}$ .—Brown scales.—*Sol.* W.—Tonic; Emmen.—*Uses:* Mild chalyb.—*Dose* 5–10 grains (0.3–0.6 Gm.) sev. t. p. d.

**Iron Tartrate Merck.—Ferrous (5)**

$\text{FeC}_4\text{H}_4\text{O}_6 + \text{H}_2\text{O}$ .—Brown powd.—*Sol.*, v. sl. W.

**Iron Tersulphate.—see Iron Sulphate, Ferric**

**Iron Tribromide.—see Iron Bromide, Ferric**

**Iron Trichloride.—see Iron Chloride, Ferric**

**Iron Trioxide.—see Iron Oxide, Red**

**Iron Valerate Merck (3)**

(Ferric Valerate).— $\text{Fe}_2(\text{C}_5\text{H}_9\text{O}_2)_2(\text{OH})_4$ .—Amorphous, brownish-red powd.; valerian odor; styp-tic taste.—*Insol.* W.—Tonic; Nerv.; Emmen.—*Uses:* Anemia or chlorosis, w. hyst. or nerv. exhaust.; dial. insipidus, epilepsy, chorea, &c.—*Dose* 3–15 grains (0.2–1 Gm.).

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Iron Vanadate (Meta-) Merck** (110)  
(Ferrous Vanadate).—Grayish-brown powd.—*Sol.*, acids; insol. *W.*—Powerful Tonic.—*Uses*: Chlorosis, anemia.—*Dose*  $1/15$ – $1/12$  grain (0.004–0.005 Gm.) daily, every second day, in pill form.

**Iron & Ammonium Borocitrate Merck.**—Scales (8)  
(Ferric Ammonio-borocitrate).—Brownish-yellow scales.—*Sol.*, eas. *W.*

**Iron & Ammonium Bromide Merck** (8)  
(Ferrous Ammonio-bromide).—Approx.:  $\text{FeBr}_2 + 2\text{NH}_4\text{Br}$ .—Reddish to brownish powd.—*Sol.* *W.*—*Caut.* Keep well stoppered.

**Iron & Ammonium Chloride.**—see **Ammonium Chloride, Ferrated**

**Iron & Ammonium Chromate Merck** (4)  
(Ferric Ammoniochromate).— $(\text{NH}_4)_2\text{CrO}_4 \cdot \text{Fe}_2(\text{CrO}_4)_3 + 4\text{H}_2\text{O}$ .—Brown cryst. crusts.—*Sol.* *W.*

**Iron & Ammonium Citrate Merck.**—Soluble, brown scales (1)

(Ferric Ammonio-citrate).—Reddish-brown, transp., hygrosc. scales; saline, ferrug. taste; deliquesce, in moist air.—Not less than 16% *Fe*.—*Sol.* *W.*; insol. *A.*—*Uses*: As of o. mild iron prep.; also techn. in photo., f. blue-prints.—*Dose* 3–10 grains (0.2–0.6 Gm.).—*Caut.* Keep well stoppered & in the dark.

**do. Merck.**—Green scales (2)

Green, v. hygrosc. scales.—14–15% *Fe*.—*Sol.* *W.*—*Uses*: Perfectly free from ferrous salt, hence specially adapted for blue prints.—*Caut.* Carefully keep in the dark!

**Iron & Ammonium Oxalate Merck** (1)  
(Ferric Ammonio-oxalate).—Approx.:  $(\text{NH}_4)_3\text{Fe}(\text{C}_2\text{O}_4)_3 + 3\text{H}_2\text{O}$ .—Green cryst.—*Sol.* *W.*—*Uses*: Photo., somet. inst. of double citrate, for blue-prints.—*Caut.* Keep in a dark place!

**Iron & Ammonium Sulphate Merck.**—Ferric.—*U. S. P.* (1)

(Ferrie Ammonium Sulphate; Ammonioferric Alum).— $\text{FeNH}_4(\text{SO}_4)_2 + 12\text{H}_2\text{O}$ .—Lilac to violet, efflor. cryst.; acid, styp. taste.—Not less than 11.5% *Fe*.—*Sol.* 3 *W.* (2.7 *W.* at 25° C., *U. S. P.*); 0.8 boil. *W.*; insol. *A.*—*Styp.*; *Astring.*; Tonic.—*Uses*: Hemorrhage, leucor., & o. uses, as iron.—*Techn.*, dyeing (where a perfectly neutral salt is required); also in chem. analysis.—*Dose* 5–15 grains (0.3–1 Gm.).—*Caut.* Keep cool & fr. light.

**Iron & Ammonium Sulphate Merck.**—Ferric.—Reagent (3)

(Ammonio-ferric Sulphate; Iron - Ammonium Alum).— $\text{Fe}_2(\text{SO}_4)_3 \cdot (\text{NH}_4)_2\text{SO}_4 + 24\text{H}_2\text{O}$ , or,  $\text{Fe} \cdot \text{NH}_4(\text{SO}_4)_2 + 12\text{H}_2\text{O}$ .—Large, pale violet or amethyst, transp., octahedr. cryst.—*Sol.* 2 *W.*; insol. *A.*—*Aqu. solut. acid.*—*Tests*: (Ferrous Salt) 1 Gm. + 20 *Cc.*  $\text{H}_2\text{O}$  + 1 *Cc.*  $\text{HCl}$  (sp. gr. 1.124) + 1 drop freshly prep. solut.  $\text{K}_3\text{Fe}(\text{CN})_6$ —no green or blue color.—(Cl) 30 *Cc.* 1:20 solut. + 3 *Cc.*  $\text{HNO}_3$  (sp. gr. 1.153) + solut.  $\text{AgNO}_3$ —no turb.—(Zn);

(Cu) 2 Gm. + 50 *Cc.*  $\text{H}_2\text{O}$  + 10 *Cc.*  $\text{NH}_4\text{OH}$  (sp. gr. 0.96); filter; filtrate colorl.; *a*: 20 *Cc.* filtrate +  $(\text{NH}_4)_2\text{HS}$ —no react.; *b*: 20 *Cc.* filtrate +  $\text{C}_2\text{H}_3\text{O}_2 + \text{K}_4\text{Fe}(\text{CN})_6$ —no react.—(Alkalies) 5 Gm. + 100 *Cc.*  $\text{H}_2\text{O}$  + 15 *Cc.*  $\text{NH}_4\text{OH}$  (sp. gr. 0.96); filter; evap. filtrate & ignite—wt. of res. not more than 0.002 Gm.—*Uses*: Indicator.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Iron & Ammonium Sulphate Merck.**—Ferrous.—Highest Purity, cryst. (1)

(Mohr's Salt; Ammonioferrous Sulphate).— $\text{FeSO}_4 \cdot (\text{NH}_4)_2\text{SO}_4 + 6\text{H}_2\text{O}$ .—Pale-green need.—*Sol.* *W.*—*Uses*: As of ferrous sulphate; in volumetric anal. & in metallurgy.

**do. Merck.**—Cryst. (1)

**Iron & Ammonium Sulphate Merck.**—Ferrous.—Reagent (2)

(Ammonio-ferrous Sulphate; Mohr's Salt).— $\text{FeSO}_4 \cdot (\text{NH}_4)_2(\text{SO}_4) + 6\text{H}_2\text{O}$ .—Pale, bluish-green cryst., or light bluish-green, cryst. powd.—*Sol.* 6 cold *W.*—*Cont.* exactly  $1/7$  its wt. metal. *Fe* as ferrous oxide.—*Tests*: ( $\text{Fe}_2\text{O}_3$ ) 1 Gm. + 20 *Cc.* boiled  $\text{H}_2\text{O}$  (free fr.  $\text{CO}_2$ ) + 1 *Cc.*  $\text{HCl}$  (sp. gr. 1.124) + few drops solut.  $\text{KSCN}$ —no immed. red color.—(Cu; Zn; Alkali Salts) 5 Gm. + 50 *Cc.*  $\text{H}_2\text{O}$  + 5 *Cc.*  $\text{HNO}_3$  (sp. gr. 1.3); boil a few min.; add 15 *Cc.*  $\text{NH}_4\text{OH}$  (sp. gr. 0.96); let stand abt. 1 hr.; filter—filtrate must be colorl. (abs. of Cu); *a*: to 10 *Cc.* filtrate add aqu.  $\text{H}_2\text{S}$ —no react. (abs. of Zn); *b*: evap. 30 *Cc.* filtrate on *W.*-bath to dryness & ignite—no whgble res.—*Uses*: Standardizing permanganate soluts.; substit. for ferrous sulphate in various uses, as determ. chromates, chromic acid, & manganese chloride.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Iron & Ammonium Tartrate Merck** (3)

(Ammonium & Iron Tartrate; Ferric Ammonium Tartrate).—Reddish-brown to garnet-brown, thin, transp. scales; sweetish ferrug. taste.—Not less than 13% *Fe*.—*Sol.* *W.*; insol. *A.*—*Uses*: As of o. mild iron preparations.—*Dose* 10–30 grains (0.6–2 Gm.).

**Iron & Cinchonine Citrate Merck** (5)

(Cinchonine Ferrocitrate).—25% cinchonine.—Yellowish-brown scales.—*Sol.*, hot *W.*

**Iron & Magnesium Citrate Merck.**—Ferric (4)  
Brown scales.—*Sol.* *W.*—*Uses*: Mild chalyb.—*Dose* 5–10 grains (0.3–0.6 Gm.).

**do. Merck.**—Effervescent, white (3)

Wh., effervesc. iron citrate & gran. effervesc. magnesium citrate.—White granules.—*Sol.* *W.*, with effervesc.—*Uses*: Mild chalyb. for long use in chlorosis, &c.—*Dose* 1 dr. (4 Gm.) sev. t. p. d.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Iron & Magnesium Citrate Merck.** Effervescent, yellow (3)  
(Ferrous Magnesium Citrate; Magnesium Ferrocitrate).—Light-yellow powd.—*Uses:* Hemat. As of preceding.

**Iron & Magnesium Lactate Merck** (5)  
(Ferrous Magnesium Lactate; Magnesium Ferrolactate).—Light-yellow powd.—*Uses:* Hemat.

**Iron & Magnesium Sulphate Merck** (4)  
(Ferrous Magnesium Sulphate).— $\text{FeSO}_4 \cdot \text{MgSO}_4 \cdot 6\text{H}_2\text{O}$ .—Greenish-wh., cryst. powd.—*Sol.* W.—*Uses:* Nonstring, mild chalyb. in chlorosis & anemia.—*Dose:* 5–10 grains (0.3–0.6 Gm.).

**Iron & Manganese Carbonate Merck** (3)  
(Ferrous Manganese Carbonate).—Gray to brown powd.—*Sol.*, acids; insol. W.—Hemat.; Alter.—*Uses:* Anemia & chlorosis like iron carbonate.—*Dose:* 5–10 grains (0.3–0.6 Gm.).

**do. Merck.**—Saccharated (3)  
Ferrous & manganous carbonate, w. milk sugar.—Grayish-brown powd.—*Sol.*, acids; partially in W.—Hemat.; Alter.; Chalyb.—*Uses:* Anemia & chlorosis.—*Dose:* 5–30 grains (0.3–2 Gm.).

**Iron & Manganese Chloride Merck** (8)  
(Ferrous Manganese Chloride).—Orange-yellow cryst.—*Sol.* W., with turbidity.

**Iron & Manganese Citrate Merck** (3)  
(Ferric Manganese Citrate).—Brown scales.—*Sol.*, v. sl. in hot W.—*Uses:* As of iron citrate.—*Dose:* 3–10 grains (0.2–0.6 Gm.) several t. p. d.

**Iron & Manganese Iodide Merck** (16)  
(Ferrous Manganese Iodide).—Granular, grayish-brown powd., or sticks.—*Sol.* W.

**Iron & Manganese Lactate Merck** (8)  
(Ferrous Manganese Lactate).—Wh. powd.—*Sol.* W.—Chalybeate; Tonic; Alter.; Emmen.—*Uses:* Chlorosis & anemia.—*Dose:* 2–10 grains (0.12–0.6 Gm.).

**Iron & Manganese Peptonized Merck** (6)  
(Ferrous Manganese Peptonate).—2% Fe & 1% Mn.—Brown powd.—*Sol.* W.—Efficient Hematinic.—*Dose:* 2–10 grains (0.12–0.6 Gm.).

**do. Merck.**—For preparing solutions (6)  
Brown scales.—15% Fe & 2½% Mn.—*Sol.* W.

**Iron & Manganese Pyrophosphate Merck** (5)  
(Ferric Manganese Pyrophosphate).—Yellowish powd.; variable comp.

**Iron & Manganese Pyrophosphate with Ammonium Citrate Merck** (5)  
(Ferric Manganese Pyrophosphate with Ammonium Citrate).—Yellowish-green scales.—*Sol.*, hot W.—*Uses:* As iron pyrophosphate with ammonium citrate; particularly well adapted for subcut. inject.—*Dose:* *Inf.* 30 m (2 Cc.) of a 10% aq. solut.—*Caut.* Keep in a dark place.

**Iron & Manganese Sulphate Merck** (2)  
(Ferrous Manganese Sulphate).—Yellowish-wh. powd.—Astring.; Tonic; Anticrep.—*Uses:* Erysipelas, leucor., gleet, &c.—*Dose:* 1–2 grains (0.06–0.12 Gm.).

**Iron & Manganese Tartrate Merck** (12)  
(Ferric Manganese Tartrate).—Brown scales.—*Sol.* W.—*Uses:* Erysipelas, leucor., &c.—*Dose:* 1½ grains (0.06–0.1 Gm.).

**Iron & Potassium Citrate Merck** (5)  
(Ferric Potassium Citrate).—Brown scales.—*Sol.* W.—Mild chalyb.—*Dose:* 3–10 grains (0.2–0.6 Gm.).

**Iron & Potassium Oxalate Merck.**—Cryst. (1)  
(Ferric Potassium Oxalate).— $\text{K}_2\text{Fe}(\text{C}_2\text{O}_4)_3 + 3\text{H}_2\text{O}$ .—Emerald-green, monoc. cryst.—*Sol.* W.

**Iron & Potassium Pyrophosphate Merck** (18)  
(Ferric Potassium Pyrophosphate).— $\text{Fe}_3(\text{P}_2\text{O}_7)_2 \cdot 3\text{K}_4\text{P}_2\text{O}_7 + \text{aq.}$ .—Grayish-white powd.—*Sol.* W.

**Iron & Potassium Tartrate Merck.**—Ferric (1)  
(Ferric Potassium Tartrate; Tartarated Iron; Tartarized Iron).— $\text{Fe}_2(\text{O}_3)_2\text{K}_2(\text{C}_4\text{H}_4\text{O}_6)_2$ .—Garnet-red to reddish-brown scales; sweetish ferrug. taste; 21°C. Fe.—*Sol.* W.; insol. A.—Tonic; Chalyb.; Emmen.—*Uses:* Non-astring., aggr. chalyb.—*Dose:* 5–10 grains (0.3–0.6 Gm.).

**Iron & Potassium Tartrate.**—Ferrous (1)  
(Ferrous Potassium Tartrate).—Mixture of ferric & ferrous potassium tartrates.—Brownish-black powd.—*Sol.*, sl. W.—*Uses:* Iron baths.

**do. Merck.**—Green, powder or scales (2)  
(Ferrated Tartar; Iron Tartar).—Green powd., or alm. black, lustr. scales.—*Sol.* W.—Tonic; Alter.; Chalyb.—*Uses:* Iron baths: abt. 1–5 oz. (30–150 Gms.) at a time.

**do. Merck.**—Globules (2)  
(Ferrated Tartar; Iron Tartar; Boules de Nancy).—Brownish-black balls.—*Uses:* Iron baths: 1 to 5 pieces at a time for a full bath.

**Iron & Potassium Tartrate with Ammonium Tartrate Merck.**—Scales (4)  
(Ferric Potassium Tartrate & Ammonium Tartrate; Potassio- & Ammonio-ferric Tartrates).—Brown scales.—*Sol.* W.—*Uses:* Mild chalyb.

**Iron & Quinine Bromide Merck** (20)  
(Quinine Ferrobromide).—Brownish-red powd.—*Sol.* W. & A.—*Uses:* Malarial affect. w. nerv. symptoms.

**Iron & Quinine Chloride Kersch-Merck.**—Ferric (20)  
(Quinine Ferrichloride).—Dark-brown scales.—*Sol.* W., & in 70% A.—Hemostatic; Antipyrr., &c.—*Uses:* Intern. & Extern., hemostatic. In epistaxis powd. is snuffed up; on bleeding surfaces it is dusted; for spitting of blood & hematuria it is taken internally.—*Dose:* 1½–3 grains (0.1–0.2 Gm.) several t. p. d., in pills or wafers.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Iron & Quinine Chloride.—Ferrous**

(Quinine Ferrochloride). — Greenish-brown, amorph. powd.—*Sol.* W.—Hemost.; Emmen.; Astring., &c.—*Uses*: Profuse menstruat.; pulmon., post partum, & o. hemorrhages.—*Dose* 10 drops of 10% solut. every hour or two.

**Iron & Quinine Citrate Merck.—Brown** (3)

Reddish-brown, deliq., transp. scales; bitter, ferrug. taste.—Not less than 11.5% dried quinine, & 13.5% Fe as ferric citrate.—*Sol.*, slowly but complet. in cold W., more read. in hot W.; partially in A. (U. S. P.).—*Tonic*; Emmen.—*Uses*: Chlorosis, neural., anemia, debil., & where quinine & iron are indic.—*Dose* 3-10 grains (0.2-0.6 Gm.).—*Caut.* Keep fr. light.

**do. Merck.—Green.—Soluble** (3)

(Quinine Ferrocitrate, Soluble). — Citrate of iron & quinine w. ammonia.—Greenish-yellow, transp., deliq. scales; bitter, ferrug. taste.—Not less than 11.5% dried quinine, & 13.5% Fe as ferric citrate.—*Sol.* W.; partially in A.—*Tonic*; Emmen.; Astring.; Antipyr.—*Uses*: Where quinine & iron are indic.—*Dose* 3-10 grains (0.2-0.6 Gm.).

**do.—N. F.—Effervescent**

Iron & quinine citr. (2 parts), sod. bicarb. (60 parts), tartaric acid (54 parts), & sugar (64 parts).—Fine, wh. powd., or wh. gran.—*Sol.* W., with effervesc.—*Tonic*; Emmen.—*Uses*: Pleas., chalyb. tonic in debil., chorea, anemia, &c.—*Dose* 1 dr. (4 Gm.), or more, in W.

**Iron & Quinine Iodide Merck** (25)

(Quinine Ferriiodide).—Yellowish-green, deliq. cryst.—*Uses*: Anemia, scrofula, & intermit. fever.—*Dose* 8-30 grains (0.5-2 Gm.) daily, in pills or syrup.

**Iron & Quinine & Strychnine Citrate Merck** (3)

(Quinine Ferrocitrate with Strychnine).—1% strychnine.—Green, transp. scales.—*Sol.* W.—*Tonic*; Antipyr.; Antiper.—*Uses*: Anemia, chlorosis, convalesc. fr. malarial & o. affect., &c.—*Dose* 2-5 grains (0.12-0.3 Gm.).—*Caut.* Keep carefully & in the dark.

**Iron & Sodium Benzoate Merck** (6)

(Ferric Sodium Benzoate).—Equal parts iron & sod. benzoates.—Reddish-brown powd.

**Iron & Sodium Citrate Merck** (3)

(Ferric Sodium Citrate).—Light-brown scales.—*Sol.* W.—*Tonic*; Astring.; Refrig.—*Dose* 1-10 grains (0.06-0.6 Gm.).

**Iron & Sodium Oxalate Merck** (1)

(Ferric Sodium Oxalate). —  $\text{Na}_3\text{Fe}(\text{C}_2\text{O}_4)_3 + 4\frac{1}{2}\text{H}_2\text{O}$ .—Emerald-green cryst.—*Sol.* 2.5 W.—*Tonic*; Astring.; Emmen.—*Dose* 3-15 grains (0.2-1 Gm.).—*Uses*: Photography.

**Iron & Sodium Pyrophosphate Merck.—Granulated, powder, & scales** (2)

(Ferric Sodium Pyrophosphate).— $\text{Fe}_4(\text{P}_2\text{O}_7)_3$ .

$2\text{Na}_3\text{P}_2\text{O}_7 + 14\text{H}_2\text{O}$ .—Grayish-wh. gran., powd., or scales.—*Sol.*, slowly in W.—*Tonic*; Astring.; Emmen.—*Dose* 3-15 grains (0.2-1 Gm.).

**Iron & Sodium Tartrate Merck** (4)

(Ferric Sodium Tartrate). — Brownish-black scales.—*Sol.* W.—*Tonic*; Astring.; Chalyb.; Emmen.—*Dose* 10-30 grains (0.6-2 Gm.).

**Iron & Strychnine Citrate Merck** (2)

Garnet to brown, transp., bitter scales.—1% strychnine, & 16% Fe as ferric citrate.—*Sol.* W.; partially in A.—*Tonic*; Hemat.—*Uses*: Where iron & strychnine are indic.—*Dose* 2-5 grains (0.12-0.3 Gm.).—*Caut.* Avoid large doses.

**Ironwood.—see Ostrya****Ironwort, German.—see Sideritis****Isatin Merck** (330)

(Isatic Acid Anhydride; Orthoaminobenzoil-formic Acid; Isatic Acid Lactone).—Fr. indigo by oxid'n.  $\text{C}_8\text{H}_5\text{NO}_2$ , or  $\text{C}_8\text{H}_4\text{CO.C}(\text{OH})_2\text{N}$ .—Yellowish-red cryst.; bitter taste.—*Sol.* A.; sl. in W., E.—*Melt.* 200° C.

**Isinglass**

(Ichthyocolla; Fish Glue).—The inner membrane of the swimming bladder of *Acipenser Huso*, L., & other sp. of sturgeon, *Ganoidei*, *Sturiones*, found in the Black Sea, Caspian Sea, & in the rivers emptying into these seas.—*Etymol.*: Fr. Grk. "ichthys," fish, & "kolla," glue. *Acipenser*, fr. Grk. "akkipesios," the sturgeon.—Thin, wh., or yellowish, semi-transp., pearly, iridesce., horny sheets.—*Sol.*, hot W.; hot dil. A.—*Constit.*: Glutin.—*Uses*: Techn., as adhesive & as clarifying agent; also in cooking, as jellies, &c.

**Isoamyl Ethers.—see under Amyl****Isoamyl Mercaptan.—see Amyl Sulphydrate****Isoamylamine.—see Amylamine****Isoamylurca.—see Amylcarbamide****Isobutyl.—see Butyl, Iso-****Isobutylcarbinol.—see Alcohol, Amylic****Isobutylcarboryl.—see Acid Valeric, Iso-****Isobutylene.—see Butylene, Iso-****Isobutylorthocresol Iodide.—see Europhen****Isobutyryl.—see Butyryl, Iso-****Isobutyryloxynaphthoquinone.—see Acid Filicio, Cryst.****Isochinoline.—see Isoquinoline****Isodulcitol Merck** (150)

(Rhamnose).—Carbohydrate. —  $\text{C}_6\text{H}_{10}\text{O}_6 \cdot \text{CH}_3 + \text{H}_2\text{O}$ , or,  $\text{C}_7\text{H}_{14}(\text{C}(\text{H})(\text{OH})_4.\text{CHO} + \text{H}_2\text{O}$ ; one of the pentoses.—Decomp. prod. of various glucosides.—Wh. cryst.—*Sol.*, eas. W., A.—*Melt.* 93° C.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Isoform**

(12)

[Paraldehyde].— $\text{OCH}_2\text{C}_6\text{H}_4\text{IO}$ .—Wh. powd.; faint odor of nidge.—*Sol.* A, L; diff. W.—Explodes on percussion, or on heating to  $230^\circ\text{C}$ ., hence marketed as mixt. w. equal part calcium phosphide.—*Antisept.*—Desodorant.—*Uses.* External, as of ichthiform; Intern., as intest. disinfect.—*Dose.* 60–120 grains (4–8 Gm.) p. d.—*Appl.*, in glycerine suspension (1:1), & as 1–10% gauze.

*Isohydrazobenzamide*.—see **Amarine**

*Isonandra Gutta*.—see **Gutta-Percha**

**Isophysostigmine Sulphate Merck**

(10000)

Salt of an alkaloid found with physostigmine in *Physostigma venenosum* (Calabar bean).— $\text{C}_{17}\text{H}_{21}\text{N}_2\text{O}_4 \cdot \text{H}_2\text{SO}_4$ .—*Sol.* W.—*Melt.* 200–202° C.—Motic.—*Uses.* As of physostigmine, but more powerful than latter ( $\frac{1}{80}$  grain [0.00075 Gm.] isophysostigmine sulphate equals  $\frac{1}{60}$  grain [0.001 Gm.] physostigmine sulphate in effect).—*Caution.* Keep solut. in amber bts.

**Isopral**

(30)

(Trichlorisopropylalcohol).— $\text{CCl}_3\text{CH}_2\text{CH}_2\text{OH}$ .—Prismatic cryst.; camphor. odor; pung. taste.—*Sol.*, abt. 30 cold W.; more read. in A & E.—*Melt.* 49° C.—Hypnotic.—*Uses.* As of hydrated chloral.—*Dose.* 5–20 grains (0.3–1.3 Gm.).

*Isopropyl Bromide*.—see **Propyl (Iso-) Bromide**

*Isopropyl Carbinol*.—see **Alcohol Butylic, Iso-**

*Isopropyl Iodide*.—see **Propyl (Iso-) Iodide**

*Isopropylideneacetone*.—see **Mesityl Oxide**

*Isopropyltoluene*.—see **Cymene**

*Iso purpurin*.—see **Purpurine Red**

**Isoquinoline Merck**

(300)

(Ischolinol).—Constit. of coal-tar; also prep. synthet. fr. homo-orthophthalamide.— $\text{C}_{12}\text{H}_7\text{N}$ , or  $\text{C}_{12}\text{H}_9\text{N}$  (CH:N)CH:CH.—Colorl. to reddish cryst.; charact. quinoline odor.—*Sol.* E, C.—*Melt.* 22° C.—*Boil.* 210° C.

*Isavalerol*.—see **Aldehyde Valeric, Iso-**

*Isavalamide*.—see **Valeramide**

*Isovalerylparaphenetidin*.—see **Valerydin**

*Isoxylene*.—see **Xylene (Meta-)**

*Irol*=**Silver Citrate**.—see **Silver Citrate**

**Iva**

(Musk Milfoil).—Flowers & herb of *Achillea* (*Santolina*) *moschata*, L. Compositae.—*Habit.*: The Alps.—*Etymol.*: “Iva,” fr. *Ajuga Iva*, name given this plant by Linneus; & derived from Lat. “abigere,” to expel (referring to its supposed action on the fetus).—*Constit.*: Achilleine,  $\text{C}_{20}\text{H}_{35}\text{N}_2\text{O}_{15}$ ; ivaol,  $\text{C}_{12}\text{H}_{20}\text{O}$ ; moschatine,  $\text{C}_{21}\text{H}_{27}\text{NO}_2$ ; ivain,  $\text{C}_{21}\text{H}_{29}\text{O}_3$ .—*Uses.* Flowers: Diaphor.; Vulner.; Herb: Tonic; Stim.; Antiepileptic.

**Ivarancusa**

Root of *Andropogon Ivarancusa*, Roxb. Gramineae.—*Habit.*: East Indies.—*Etymol.*: “Ivarancusa” is the Bengalese name for the plant.—*Constit.*: Volat. oil; resin; bitter subst.—*Dia-phor.*—*Uses.*: Techn., in perfumery.

*Ivory Black*.—see **Charcoal, Animal**

**J**

*Jaborandi*.—see **Pilocarpus**

**Jaborine Merck**

(2500)

Alkaloid fr. leaflets var. species *Pilocarpus*.— $\text{C}_{22}\text{H}_{27}\text{N}_4\text{O}_4$ (?)—Amorph., yellow, syrupy mass.—*Sol.* A, E, C.—Mydriatic, like atropine but weaker.—*Caution.* Poison

**Jabuti Matumata**

(Cipó Jabuti Matúmatá).—Wood of a sp. of *Bauhinia*. *Cesalpinia*aceae.—*Habit.*: Brazil.—*Etymol.*: “Jabuti matumata” is the Brazilian name of the plant.—*Uses.*: Expectant.; Anti-dysenteric.

**Jacaranda Fruit**

(Arabiccho; Jarabiseo; Paraviseo).—Fruit of *Jacaranda acutifolia*, Hook. & Benth. Bignoniaceae.—*Habit.*: Central & Northern Peru.—*Etymol.*: “Jacaranda” is the Brazilian name of the plant.—*Constit.*: Tannin.—*Uses.*: Antisyph.; Astring.

**Jacaranda Leaves**

(Carob Tree; Caroba; Caaroba).—Lvs. of *Jacaranda procera*, Spreng. & other spec. of *J. Bignoniaceae*.—*Habit.*: Guiana to Brazil.—*Etymol.*: “Jacaranda” is the Brazilian name of the plant. “Carob” is derived fr. “caraiha,” another Brazilian name by which the plant is known.—*Constit.*: Carobin; carobic acid; caroba resin; steocarobie acid; carobone; caroba balsam; caroba tannin; bitter principle.—*Diuret.*; Antisyphilitic; Antiscip.—*Uses.*: Syphilitic affect. & indol. ulc.—*Doses.*: 15–30 grains (1–2 Gm.) in powd.—Fld. extr., 15–60 M (1–4 Cc.).

**Jacquemart's Reagent**.—For ethyl alcohol

Aqu. solut. of mercuric nitrate acidul. w. nitric acid.—On heating the reagent with the liquid to be examined, the mercury salt is partially reduced, & if ethyl alcohol is present, it affords a black precipitate on adding ammonia water. Methyl alcohol does not afford this reaction.

**Jalap**.—U. S. P.

Dried tuberous root of *Exogonium Purga* (Wend.) Benth. Convolvulaceae.—*Habit.*: Mexico; cult. India.—*Etymol.*: Named for “Jalapa,” or “Xalapa,” a city in Mexico whence the drug is chiefly exported. “Exogonium,” fr. Grk.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



"exo," outside, & "gonos," offspring, *i.e.*, the stamens & pistils are exerted. "Purga," fr. Lat. "purgo," to purge, referring to its cathart. action.—*Constit.*: Resin (convolvulin & jalapin); gum; sugar.—*Drastic Purgat.*; Diuret.; Anthelmin.—*Uses*: Dropsy, cerebr. hyperemia, constip., worms, &c.—*Doses*: 5–30 grains (0.3–2 Gm.).—*Alcoh. extr.*, 5–10 grains (0.3–0.6 Gm.).—*Fld. extr.*, 15–30 ℥ (1–2 Ce.).

**Jalapin Merck**

(20

White or yellowish resin fr. roots of *Convolvulus Orizabensis*; ident. w. scammonin.— $C_{34}H_{56}O_{16}$ .—*Sol. A.*—*Drast. Purg.*—*Dose* 1–5 grains (0.06–0.3 Gm.).

*Jamaica Dogwood.*—see **Piscidia**

**Jambul**

(Jambou; Java Plum; Jumbul).—Bark, fruit, & seed of *Eugenia* (*Syzygium*) *Jambolanum*, Lam. Myrtaceae.—*Habit.*: East Indies.—*Etymol.*: "Jambul" is the Malabar name of the plant; "syzygos," Grk., yoked, *i.e.*, the flower petals grow together.—*Bark*: Somewh. light, moderately hard, reddish-gray pieces showing dark brownish-red ring-zones; rather bitter, astring., & pungent taste.—*Fruit*: Purple, shape & size of olive, & very astring.—*Seeds*: Cylindrical, grayish-black, very hard, abt.  $\frac{1}{2}$  in. long, & alm. tasteless.—*Constit.*: *Bark*: Resin, tannin.—*Fruit*: Volat. & fixed oils; resin; tannin.—*Seed*: Resin; fat; gallic acid; albumen.—*Uses*: *Bark*: Antidiabetic; Astring.—*Techn.*, in tanning.—*Fruit*: Specific in diabetes; used also in bilious diarrheas, sore throat, & ringworm.—*Seed*: Antidiabetic (the seeds have been found capable of retarding or restraining the action of diastatic ferments).—*Doses*: *Seeds*: 30–60 ℥ (2–4 Ce.) of the fld. extr. daily, beginning with 10 ℥ (0.6 Ce.) doses 3 times daily.—*Alcoh. extr.*, 10–45 grains (0.6–3 Gm.).—*Bark*: *Fld. extr.*, 1–4 fl. dr. (4–15 Ce.).

*James' Febrile Powder.*—see **Calcium Phosphate, Antimoniated**

*Japaconitine.*—see **Aconitine from Japanese Aconite**

*Japan Wax.*—see **Wax, Japan**

*Jatahy.*—see **Hymenæa Bark**

*Jateorhiza.*—see **Calumba**

*Jatropha Curcas.*—see **Curcas**

*Jatropha Urens.*—see **Pini-Pini**

*Jaune Brillant.*—see **Cadmium Sulphide, Light Yellow**

*Jaune d'Or.*—see **Martius Yellow**

*Java Tea.*—see **Orthosiphon**

**Jeffersonia**

(Rheumatism Root; Twinleaf).—Root of *Jeffersonia diphylla*, Persoon. Berberidaceae.—*Habit.*: Ontario to Virginia & west to Wisconsin.—

*Etymol.*: Named in honor of Thomas Jefferson. "Diphylla" fr. Grk. "di," two, & "phyllon," leaf, refers to the occurrence of the leaves in pairs.—*Constit.*: Berberine(?); saponin; bitter principle tannin.—*Alter.*; Diuret.; Expector.; Antispasmodic; Diaphor.—*Uses*: Rheumat., syphil., coughs, colds, nerv. affect., bronch., etc.—*Dose*: *Fld. extr.*, 30–60 ℥ (2–4 Ce.).

**Jequiritol Merck.**—Each package contains 4 tubes of graded solutions of jequiritol, and 4 tubes jequiritol serum

Preparation of abrin fr. jequirity seed, *Abrus precatorius*, & introduced by Römer into ophthalmic practice.—Sterile liquid containing 50% glycerin, & of constantly uniform physiologic action, thus permitting accurate dosage.—*Uses*: Chronic ocular inflammations of various etiology, in which jequirity infusion was formerly used.—*Dose*: Beginning w. 1 drop per day of solut. No. 1, increasing the dose by 1 drop every day until the characteristic jequiritol inflammation supervenes.

**Jequiritol Serum Merck**

Prepared according to Behring's principle, possesses the power to rapidly & surely neutralize the action of jequiritol in the human system. The action is obtained both by applying it locally, or by subcut. inj.—Marketed in tubes of 75 ℥ (5 Ce.) each.

*Jequirity.*—see **Abrus**

**Joannesia**

(Anda Assu; Arara).—Seed of *Joannesia princeps*, Vell. Euphorbiaceae.—*Habit.*: Brazil.—*Etymol.*: Named for the Archduke Johann I. of Austria.—*Constit.*: Fixed oil; joannesin(?); resin.—*Uses*: Hepatic diseases, jaundice, dropsy, serofula, & menstrual disturbances; also as purgat.—*Dose*: One seed (as cathart.).—Of oil, 2–3 dr. (8–12 Gm.).

**Jolles' Reagent.**—For albumin in urine

Solut. 10 Gm. corros. sublim., 20 Gm. succinic acid, & 20 Gm. sod. chloride in 500 Ce. W.—Albuminous urine is rendered turbid by the reagent.

*Judas Tree.*—see **Cercis**

*Judean Pitch.*—see **Asphaltum**

**Juglandin Merck**

(85

Resinoid fr. root bark *Juglans cinerea*, L.—Grayish-white powd.—*Sol.*, sl. A.—*Cath.*; Antiper.—*Uses*: Mild lax., habit. constip., & remit. fever.—*Dose* 2–5 grains (0.12–0.3 Gm.).

**Juglans**

(Butternut; White Walnut; Lemon Walnut; Oil Nut).—Bark of root of *Juglans cinerea*, L. Juglandaceae. Collected in autumn.—*Habit.*: North America (Canada; U. S.).—*Etymol.*: Fr. Lat. "Jovis," Jupiter, & "glans," oak, *i.e.*, Jupiter's oak. "Cinerea" fr. Lat. "cinereus," ashen (color).—Flat or curved pieces abt.  $\frac{1}{3}$  in.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Trichloride; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



(5 Mm.) thick; extern. dark-gray or deep-brown; inner surface smooth & striate; transv. fract. short, whitish & brown; feeble odor; bitter, somewh. acrid taste.—*Cor.* 5. Renoid juglandin; nucin (juglone-juglandic acid); fixe l & volat. oils; tannin—Lavat.; Cathart.; Hepat.; mild Intest. Stim.; Antiper.; Alter.—*Uses:* Habitual constip., dysent., malar. fevers, &c.—*Doses:* 1-2 dr (4-8 Gm.).—Fld. extr., 1-2 fl. dr. (4-8 Ce.).—Hydro-alcoh. extr., 10-30 grains (0.6-2 Gm.).

### Juglans Regia

(English Walnut; European Walnut; Nux Regia).—Lvs. & green shells of fruit of Juglans regia, L. Juglandaceae.—*Habit.*: Europe; Asia; cultiv. in U. S.—*Lvs.*: Pinnate, sessile, 2 1/2-6 in. (6-15 Cm.) long & abt. 2 in. (5 Cm.) wide; astring., bitter taste & characteristic odor when recent; odor becomes weaker on drying.—*Green Shells*: Green, but becoming blackish-brown on drying; astring., bitter taste, & characteristic odor.—*Constit.*: Lvs.: Volat. oil; juglon; tannin.—*Shells*: Juglon,  $C_{10}H_8O_3$  (mucin; regianin); mucitannic acid.—*Uses:* Lvs.: Aper.; Antiarthrit.; Alter. (in serofula); Astring. (in mammary secret., leucor., ulcers, diar., uterine hemorrh., &c.).—*Shells*: Intern., in serofula & syphilis; worms; *Extern.*, as appl. in form of decoct. to ulcers & sore eyes.—*Techn.*, as hair dye, & in manuf. of liquors.—*Doses:* Lvs.: Up to 1 oz. (30 Gm.) daily, in decoct.—Fld. extr., 15-30 ml (1-2 Ce.); diluted with water, as appl. in hemorrhagia.—Alcoh. extr., 15-60 grains (1-4 Gm.).—*Green Shells*: Alcoh. extr., in 1:25 aq. solut. as appl. to indol. ulcers; used mostly as a hair dye.

*Juice*: Belladonna, Chelidonium, Cineraria, Conium, Digitalis, Hyoscyamus, Olut-Kombul, Papaw, Sambucus, Scoparius, & Taraxacum.—see Belladonna, Chelidonium, Cineraria, Conium Herb., &c.

*Juice*, Broom.—see Scoparius Juice

*Juice*, Dandelion.—see Taraxacum Juice

*Juice*, Elderberry.—see Sambucus Juice

*Juice*, Hemlock.—see Conium Juice

### Jujube-Berries

Fruit of Zizyphus vulgaris, Lamarek. Rhamnaceae.—*Habit.*: Mediterranean region.—*Ety-mol.*: Fr. Lat. "jujuba," said to have been derived from "zizuf," the ancient Phœnician name of the plant.—*Constit.*: Sugar; pectin.—*Uses:* Demulc.; Resolvent.

*Jumbui*.—see Leucæna

*Jumble* or *Jumbul Beads*.—see Jambul

### Juncus

(Rush; Bog Rush).—Root of Juncus conglomeratus, L. Juncaceae.—*Habit.*: Europe; U. S.—*Ety-mol.*: Lat. "jungere," to bind, i.e., the stems & lvs. are used for binding.—*Uses:* Demulcent.

### Juniperus

(Juniper).—Berries, wood & tops of Juniperus communis, L. Conifere.—*Habit.*: Northern Europe; Asia; North America.—*Ety-mol.*: Celtic "juncuprus," thorny, rough, referring to the lvs. Or, fr. Lat. "juvenis" youthful, & "parere," to produce, i.e., young shoots & lvs. are continually replacing the old. "Communis," fr. Lat. for common, or usual.—*Constit.*: Volat. oil; juniperin; resin; proteids; malates; formic & acetic acids.—*Uses:* Berries: Diuret.; Stim.; Anodyne; Lunen.; Carmin.; Stomachic.; Anti-sep.—*Techn.*, in manuf. of liquor, & for fumigating.—Wood: Diuret.; Diaphor.—Tops: Diuret.—*Doses:* Berries: 60-120 grains (4-8 Gm.) in infus.—Extr. (inspiss. juice), 5-15 grains (0.3-1 Gm.).—Fld. extr., 30-90 ml (2-6 Ce.).

*Jurubaba*.—see Solanum Insidiosum, & S. Paniculatum

## K

### Kalmia

(Mountain Laurel; Lambkill).—Lvs. of Kalmia latifolia, L. Ericaceae.—*Habit.*: Canada & eastern U. S.—*Ety-mol.*: Named for Peter Kalm, a pupil of Linnæus (d. 1779). Lat. "latifolius," broad-leaved.—*Constit.*: Andromedotoxin,  $C_{31}H_{50}O_{10}$ ; arbutin; resin; tannin.—Alter.; Sedat.; Astring.—*Uses:* Syphil. affections, serofula, funct. derangement of heart, & rheumat.—*Dose*: Fld. extr., 10-30 ml (0.6-2 Ce.).

### Kamala

(Kamila; Kameela; Spoonwood).—Glands & hairs fr. the capsules of Mallotus philippinensis, (Lam.) Muell. Arg. (Rottlera tinctoria, Roxb.). Euphorbiaceae.—*Habit.*: Philippine Islands; India; China; Australia.—*Ety-mol.*: "Kamala" is the Bengalese name of the drug.—*Constit.*: Kamalin (Rottlerin; Mallotoxin),  $C_{22}H_{20}O_7$ ·COOH; isorottlerin; rottlera red; wax.—*Uses:* Tape-worm remedy & Purgat.—*Extern.*, in ringworm, itch, & other parasitic skin dis.—*Doses:* 60-120 grains (4-8 Gm.).—Alcoh. extr., 10-20 grains (0.6-1.3 Gm.).—Fld. extr., 60-120 ml (4-8 Ce.).

### Kamalin Merck

(275

(Rottlerin).—Bitter prin. fr. Kamala.— $C_{22}H_{20}O_7$ ·COOH.—Yellowish-brown to reddish-yellow, cryst. powd.—Sol. E.; boil. A.; acetic acid,  $CS_2$ , alkal. solut.—Melt. 200° C.—Anthelm.

*Kandol*.—see Canadol

*Kaolin*.—U. S. P.

(Bolin Alba; Argilla; China Clay; Terra Alba; White Bole).—Decomp. prod. of felspar.—White or yellowish-white, earthy mass, or white powd., unctuous when moist. Prepared for pharm. purposes by treat. w. 5% HCl, & remov. sand by levig. with water.—Insol. W., & in cold solut. of acids & alkali hydroxides.—Consists essentially of hydrated aluminum silicate,  $H_2Al_2Si_2O_8 + H_2O$ , or,  $Al_2O_3 \cdot 2SiO_2 \cdot 2H_2O$ .—*Uses:* Dust-

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



ing powd. for irrit. surfaces, sores, &c.; drying agent & emoll.; clarifying & decolorizing liquids (oils, wine, beer, honey, syrups); excip. for  $\text{AgNO}_3$  &  $\text{KMnO}_4$ .

#### Kaolin Cataplasm.—U. S. P.

Mixt. Kaolin 577, boric acid 45, thymol 0.5, methyl salicylate 2, oil peppern. 0.5, & glycerin 375.—*Uses*: Relieve congestion & pain in burns, boils, synovitis, orchitis, &c.—Applied hot.

#### Kassner's Mixture Merck.—Reagent

Mixt. of barium peroxide & potass. ferricyanide.—*Uses*: Evolving oxygen.—The constituents of the mixt. are kept separate.

#### Katrine.—see Celestrine

#### Kau-Kui.—see Eumenol

#### Kaurie.—see Copal

#### Kautschin.—see Dipentene

#### Kava-Kava

(Ava-Ava; Kawa).—Root of *Methysticum* (*Piper*) *methysticum*, Forst. (*Macropiper methysticum*, Miq.). Piperaceae.—*Habit.*: Polynesia.—*Etymol.*: "Kava-Kava," fr. the Polynesian "kava," or "ava," sharp, which by reiteration signifies having an exceedingly sharp taste. Grk. "methystikos," fr. "methyein," to be intoxicated, referring to the intoxicating action of the plant.—*Constit.*: Alpha- & beta- kava-kava resins; kavaine (alkaloid); kavahin; methysticin.—*Sialag.*: Sudorific; Diuret.; Tonic; Stim.; Anticatatarrh.—*Uses*: Gonorr., gout, rheum., dropsy, vaginitis, chron. cystitis, retention of urine, gleet, &c.—*Doses*: 15–90 grains (1–6 Gm.).—*Fld. extr.*, 15–60  $\text{m}$  (1–4 Cc.).—*Hydroalcohol. extr.*, 5–30 grains (0.3–2 Gm.).

#### Kawaïne.—see Methysticin; Resin Kava-Kava

#### Kefir Fungi Merck (20)

(Kefir Grains; Kefir Seeds).—A fermentation-causing conglomeration of various fungi, including those of *Dispora caucasica* & *Schizomyces*, besides a species of *Saccharomyces*.—*Etymol.*: The name "Kefir" is employed by the Caucasian tribes, & is probably derived from "keyf," meaning well-being.—Grayish-yellow lumps, irregular in size; firm, toughly gelatinous consistency, becoming cartilaginous & brittle when dry.—*Uses*: For preparing a refreshing beverage, which is also particularly beneficial for patients suffering from pulmonary & gastric diseases, as well as for convalescents.—**Preparation of Kefir**: A tablespoonful of Kefir fungi is soaked for 3 hrs. in luke-warm water, the water is then poured off, & the washed fungi introduced into a Selters flask  $\frac{3}{4}$  filled with milk which has been heated to  $30^\circ\text{C}$ , but not boiled. The mixture is then allowed to stand, with occasional shaking, for 24 hrs. in not too warm a place; the liquid, ready for use, is poured off from the kefir fungi, which may be used to

prepare further quantities of kefir in the manner described; or, the liquid itself may be used as a fermenter of fresh quantities of milk.

#### Kelene.—see Ethyl Chloride

#### Keratin Merck.—From Horn (70)

Purif. corneous substance fr. horn or quills.—White to grayish-white scales or yellowish-brown powd.—*Sol.*, ammonia, acetic acid; insol. W., & dil. acids.—*Uses*: Coat. enteric pills.

#### do. Merck.—Pepsinized (60)

Horn-substance purif. by pepsin.—Yellowish-brown, deliq. powd.—*Sol.*, ammonia & acetic acid; insol. W. & dil. acid.—*Uses*: Coating "enteric" pills which are unattacked in the stomach, but are dissolved by the alkaline intestinal secretions. The solut. used is made by dissolving 7 parts pepsinized keratin in 100 parts acetic acid, or in 50 parts ammonia water mixed w. 50 parts dil. alcohol. The pill mass should be made with fat or wax as an excipient, & the pills, before being coated, should receive a coating of graphite or cacao butter.

#### Kermes Mineral.—see Antimony Sulphurated

#### Kermesin Orange.—see Orange T

#### Ketole.—see Indole

#### Ketopropane.—see Acetone

#### Kidney Merck.—Dried, powder (25)

Fr. fresh kidneys of sheep & pigs.—1 part = 6 parts fresh kidney.—*Uses*: Nephritis.—*Dose* 8–30 grains (0.5–2 Gm.) 3–4 t. p. d.

#### Kidney Bean.—see Phaseolus

#### Kidney Vetch.—see Anthyllis

#### Kieffer's Solution.—see Copper & Ammonium Sulphate, Solution

#### Kieselguhr

(Infusorial, Siliceous, or Diatomaceous, Earth; Fossil Flour).—Ground, levigated, & ignited siliceous shells of various species of Diatoms (*Gallionella*, *Melosira*, *Navicula*, *Synedra*, *Gomphonema*, &c.).—Wh. powd.; capable of taking up & holding 4 times its wt. of water.—*Uses*: Largely as an absorbent for liquids, & for dispensing fld. extracts in powd. form (equal parts yield a dry powd.). Also as constituent of & excipient for pill masses.—*Techn.*, manuf. dynamite, ultramarine, aniline, alizarine; in building, heat-insulating materials, as packing for caustic & inflamm. substances, electrical insulators; manuf. paper & soap, in putz pomade & other polishes; manuf. water-glass, glazes, & glass, in filtering (to obtain sterile filtrates), &c.

#### King's Yellow.—see Arsenic Sulphide, Yellow

#### Kinkélibah

Lvs. of *Combretum album*, Guill. et Perr. (C. Raimbaulti) Combretaceae.—*Habit.*: West coast

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Nyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



of Africa, Senegal, Sierra Leone. *Etymol.* "Combretum" is the name given by Pliny (accord. to Lolling, 1720-1736) to a very thick-leaved plant, otherwise not specially described. Raimbault was a French missionary (1841).—*Constit.*: Potassium nitrate, Capnin.—*Uses*: In form of decoct. in African black-water fever.—*Dose*: 1 dr. (15 Gm.).

#### Kino.—U. S. P.

(Resin Kino; Gum Kino).—Inspissated juice of *Pterocarpus Marsupium*, Roxb. Leguminosae. (Papilionaceae).—*Habit*: Western Africa, East India; Ceylon; Bengal.—*Etymol.*: "Kino," or "kano," is the name by which the Mandingos, a tribe of West-African negroes, designate the gum. Lat. "marsupium," a bag, pouch, referring to the shape of the fruit.—*Constit.*: Kinotannic acid,  $C_{12}H_{10}O_6$ ; kino-red,  $C_{22}H_{12}O_{11}$ ; pyrocatechin,  $C_6H_4O_2$ ; kinoin,  $C_{12}H_{12}O_6$ ; gum.—*Stypt.*: & Astring.—*Uses*: Diarr., heartburn, leucor., passive hemorrhages, diabetes, &c.—*Techn.*, in dyeing & tanning.—*Doses*: 5-30 grains (0.3-2 Gm.).—Fld. extr., 10-30 ml (0.6-2 Ce.).—Tinct., 30-120 ml (2-8 Ce.).

#### Kleinenberg's Fat Mixture

Solut. cacao butter & spermaceti in castor oil.—*Uses*: As imbedding material in microscopy.

#### Kleinenberg-Mayer's Picro-Sulphuric Acid

Satur. solut. picric acid in 2% sulphuric acid, w. a few drops creosote added.—*Uses*: For fixing most tissue elements (except those cont.  $CaCO_3$ ).

#### Klein's Reagent.—For separating minerals

Satur. aqu. solut. cadmium borotungstate.— $2 CdH_2WO_6 \cdot 7 (WO_3) B_2O_3 + aq.$ —Sp. Gr. 3.28 at 15°C.—*Uses*: Separating minerals by sp. gr.

#### Klemensiewicz's Picrocarmine

Similar to Ranvier's picrocarmine, & used like it.

#### Knapp's Reagent.—For quantitatively estimating glucose

1% solut. mercuric cyanide w. addition of NaOH.—In titrating, the liquid is acidulated w. acetic acid, &  $SH_2$  or ammon. sulphide serves as indicator by the "spot" method.—Calculation: Ce. solut.: 0.1:100::x, where x=% glucose.

#### Knautia Arvensis.—see Scabious

#### Knot-Grass.—see Polygonum

#### Koch-Ehrlich's Stain.—For bacilli tuberculosis

(a): Aqu. 1:200 solut. methylene blue rendered alkaline w. 3-4 drops of a 10% solut. potass. hydroxide.—(b). Concent. aqu. solut. vesuvium. The objects are first stained in the methylene-blue solut., & then with the vesuvium solut. Nuclei, as well as most micrococci, are stained brown; tuberculosis bacilli, however, are stained an intense blue.

#### Koji.—see Diastase, Taka-

#### Kola.—see Cola

#### Kosin Merck.—Cryst.

(2000

Kosin; Koson; Kosonin).—Act. cryst. principle fr. female fl. *Hagenia abyssinica*, (Bruce) Gmelin.— $C_{26}H_{34}O_{10}$ .—Yellow need.—Sol. A, F, C, B, & alkalis.—Melt. abt. 150°C.—Anthelmintic.—*Dose*: 20-30 grains (1.3-2 Gm.).

#### Koussin.—see Kosin

#### Koussein Merck.—Amorph.

(120

Brayera; Kussin).—Amorph. prin. fr. female fl. *Hagenia abyssinica*, (Bruce) Gmelin. Brownish, amorph. powd.—Sol. A, F, C.—Anthelmintic.—*Dose*: 15-60 grains (1-4 Gm.) in 4 portions at intervals of half hour, followed by castor oil; children half the dose.

#### Koussin.—see Kosin

#### Koussou.—U. S. P.

(Cusso; Brayera).—Female inflorescence of *Hagenia abyssinica*, (Bruce) Gmelin; Brayera anthelmintica, Kunth, Rosaceae.—*Habit*: Abyssinia.—*Etymol.*: Named for Karl Gottfried Hagen (1749-1829). "Abyssinica" refers to the habitat of the plant. "Cusso" is the Abyssinian name of the plant. "Brayera" named for Dr. Brayer, a French physician who lived in Constantinople, & published a description of Koussou in 1823.—*Constit.*: Kosin (koussin; kossen; kosine),  $C_{26}H_{34}O_{10}$ ; Koussin; volatile oil; tannin; kosidin; protokosin; kosotoxin,  $C_{26}H_{34}O_{10}$ .—Anthelmintic.—*Uses*: Tapeworm.—*Doses*: 2-6 dr. (8-24 Gm.).—Alcohol. extr., 30-60 grains (2-4 Gm.).—Fld. extr., 4-8 fl. dr. (15-30 Ce.). p. d., in two doses.

#### Krameria.—U. S. P.

(Rhatany; Payta [Peruvian name of drug]).—Dried root of *Krameria triandra*, Ruiz et Pavon (Peruvian *Krameria*), & of *K. argentea*, Martius (Para or Brazilian *Krameria*), (also *K. ixina*). *Krameriaceae*.—*Habit*: Peru; Bolivia; Brazil.—*Etymol.*: Named for J. G. H. & W. H. Kramer, German botanists (18th century). "Ratanha," or "ratanhia," is the Quichuan (Peruvian) name of the drug, & is derived fr. Spanish "ratania," or "ratana," creeping, referring to the plant's habit. "Triandra," fr. Grk. "tri," three, & "andros," stamen, i.e., the flowers have 3 stamens. "Ixina," Lat. fr. native name. "ixine," at Cumana, Venezuela, where Loefling discovered the plant in 1754.—*Constit.*: Kramertannic acid; rhatania-red.—Tonic; Astring. (like tannin).—*Uses*: Especially in hemorrhages; chronic diarr., menorr., spongy gums.—*Extern.*, in leucor., spongy gums, prolapsus ani, fissured anus, &c.—*Doses*: 5-30 grains (0.3-2 Gm.).—Alcohol. extr., 5-15 grains (0.3-1 Gm.); in oint., 1:10; gargles, 5-10% solut.; inject., 1-2%.—Fld. extr., 15-60 ml (1-4 Ce.).—Tinct., 30-120 ml (2-8 Ce.).

#### Kreatin.—see Creatin

#### Kreatinine.—see Creatinine

#### Kreosol.—see Creosol

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Kresote*.—see **Creosote from Beechwood**

*Kresol*; *Meta*-, *Ortho*-, & *Para*-.—see **Cre-salol**; *Meta*-, *Ortho*-, & *Para*-

**Kresamine** (100  
(Ethylenediamine-Trikresol).—25% each tri-kresol & ethylenediamine in aq. solut.—Yellowish, alkaline liq.; phenol odor.—*Misc.*, all prop. G.; 3 W.; immiscib. w. petrolatum.—Surgical Antisept.; Dermic, &c.—*Appl.* 0.5–1.5% soluts.; 4–20% oints.

*Kresol*.—see **Cresol**

*Kroupa's Paper*.—see **Fuchsine Paper**

**Kryofine** (20  
(Methoxyacetphenetidin).—Condensation prod. of paraphenetidin & methylglycolic acid.— $\text{CH}_3\text{OCH}_2\text{CONH.C}_6\text{H}_4\text{OC}_6\text{H}_5$ .—White, odorl., cryst. powd.—*Sol.* 660 W.; freely in A.—*Melt.* 98° C.—Antipyr.; Anodyne; Antineuralgic.—*Dose* 5–15 grains (0.3–1 Gm.) daily.

*Kryogenin*.—see **Cryogenine**

*Kusscin*.—see **Koussein**

*Kussin*.—see **Kosin**

## L

*Labarraque's Solution*.—see **Solution Soda, Chlorinated**

*Labordin*.—see **Analgen**

*Labrador Tea*.—see **Ledum**

*Lacca*.—see **Shellac**

**Lacmoid Merck**.—Scales (35  
(Resoreinol Blue).—Fr. resoreinol w. sod. nitrite.— $\text{C}_6\text{H}_3(\text{OH})_2\text{N}:\text{O.OH.C}_6\text{H}_3$ .—Lustrous, dark violet scales.—*Sol.* A., acetone, E., wood A., acetic acid, phenol; sl. in W.; blue in str. hydrochl. or sulphuric acid.—*Uses*: Instead of litmus as indicator in alkalimetry.

**Lacmoid Merck**.—Reagent.—Scales (40  
(Resoreinol Blue).—Lustr., dark-viol. scales.—*Sol.* A., acetone, E.; sl. W.—Indicator solut.: 0.5 lacmoid + 100 Ce. 90% alcoh. + 100 Ce.  $\text{H}_2\text{O}$ .—*Tests*: (Indicator) a: 0.2 Ce. solut. + 100 Ce. absol. A.; add 0.05 Ce. decinorm. HCl—blue color should change to red, & on further add. 0.05 Ce. decinorm. KOH, red color should change to blue; b: 0.2 Ce. solut. + 100 Ce. dist.  $\text{H}_2\text{O}$  (freed fr.  $\text{CO}_2$  by boil. in platin. dish); add 0.05 Ce. decinorm. HCl—blue color should change to red, & on further add. 0.05 Ce. decinorm. KOH red color must change to blue.—*Uses*: Indicator (alkalies=blue; acids=red).

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## Lacmoid Paper

Wh. paper, impregn. w. hydro-alcoh. solut. of lacmoid & dried.—Both a red & a blue paper are made. The red paper is far more sensitive than red litmus paper for alkalies, & because of its proneness to spoil, should be preserved in well-stoppered bottles.—*Uses*: Indicator in alkalimetry (alkalies=blue; acids=red).

*Lacmus*.—see **Litmus**

*Lac Sulphuris*.—see **Sulphur, Precipitated**

**Lactamide Merck** (200  
 $\text{C}_3\text{H}_7\text{NO}_2$ , or,  $\text{CH}_3\text{CH}(\text{OH}).\text{CO}.\text{NH}_2$ .—Colorl. cryst.—*Sol.*, sl. W., A.—*Melt.* 74° C.

*Lactoglucose*.—see **Galactose**

## Lactol

(Betanaphthol Lactate).—Antiseptic.—*Uses*: Recom. as substit. for benzonaphthol.

**Lactophenin** (20

(Lactylphenetidine).—Deriv. of phenetidin w. lactic acid.— $\text{OC}_2\text{H}_5\text{C}_6\text{H}_4.\text{NH}.\text{CO}.\text{CH}(\text{OH})\text{CH}_3$ .—Wh., cryst. powd.—*Sol.* 330 W.; sl. E.—*Melt.* 118° C.—Antipyr.; Antineural.; Hypnotic, & Analg.—*Uses*: Fever, headache, neural., rheum., influenza, scarlet fever, septicemia, &c.—*Dose* 8–15 grains (0.5–1 Gm.).—*Max. D.* 15 grains (1 Gm.) single; 45 grains (3 Gm.) per day.

*Lactose*.—see **Milk Sugar**

## Lactuca

(Wild Lettuce; Acid Lettuce; Strong-scented Lettuce; Green Endive).—Flowering herb of *Lactuca virosa*, L. Compositae. Synanthereae.—*Habit.*: Europe.—*Etymol.*: Lat. "lac," milk, because of the milky juice the plant exudes when bruised or punctured; & "virens," poisonous, referring to its opium-like action.—*Constit.*: Lactucin,  $\text{C}_{11}\text{H}_{12}\text{O}_3.\text{H}_2\text{O}$ ; lactucerin,  $\text{C}_{28}\text{H}_{44}\text{O}_2$ ; lactucarium; lactucopierin; lactucic acid.—*Narcotic*; Anodyne; Sedat.; Hypnot.; Diuret.; Expector.—*Uses*: Dropsy, jaundice, gout, asthma; & in prep. of lactucarium. Mild substitute for opium in cough mixtures.—*Dose*: Alcoh. extr.,  $\frac{1}{2}$ – $1\frac{1}{2}$  grains (0.03–0.1 Gm.).—*Max. D.* 10 grains (0.6 Gm.) single; 40 grains (2.6 Gm.) daily.

**Lactucarium Merck**.—French (8

(Thridace).—Inspiss. juice of *Lactuca sativa*, var. capitata, L. Compositae.—*Habit.*: Southern Asia; France; now widely cultiv.—*Etymol.*: For "Lactucarium," see preceding. Lat. "sativus," cultivated.—Brown pieces (less active than the German lactucarium).—*Constit.*: Lactucine; hyoscyamine. — Hypnot.; Sedat.; Narcot. (particularly in asthma, bronchitis, &c.).—*Uses*: Cough mixtures, & as a mild substitute for opium.—*Doses*: 8–30 grains (0.5–2 Gm.).—*Max. D.* 30 grains (2 Gm.).—Alcoh. extr., 2–10 grains (0.12–0.6 Gm.); *Max. D.* 12 grains (0.8 Gm.) single, 40 grains (2.6 Gm.) daily.—Fld. extr., 10–30  $\text{m}$  (0.6–2 Ce.).—Tinct., 10–60  $\text{m}$  (0.6–4 Ce.).

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Lactucarium Merck.**—German (9)  
 ("Lettuce Opium"). Concrete milk-juice of *Lactuca virosa*, L. Compositae.—*Habit.* Europe.—*Etymol.*: See *Lactuca*.—Irreg., brown lumps; wax-like when cut; narcotic odor; bitter taste.—*Sol.*, partly in W., A., E.—*Constit.*: Lactucine; lactucerin; hyocyanine; lactucopierin; lactucic acid; coumestrol; volatile oil; mannit; gum, &c.—*Anal.*: *Sol.*: Hypn.—*Uses*: Nervous, cough, &c., where opium is inadvisable.—*Dos.*: Hypn., & anal., 3-8 grains (0.2-0.5 Gm.); sed.,  $\frac{1}{2}$ -5 grains (0.03-0.3 Gm.).—*Max. D.*: 8 grains (0.5 Gm.) single; 15 grains (1 Gm.) daily.—*Caut.* Keep dry.

**Lactucerin Merck** (500)  
 (Lactucen).—Acetic ester of alpha- & beta-lactuceryl fr. German lactucarium.— $C_{28}H_{44}O_2$ .—Yellowish-white cryst.—*Sol.* A., E.—*Melt.*, abt. 200° C.—Sedative.

**Lactucin Merck** (6000)  
 Bitter prin. fr. French lactucarium.— $C_{11}H_{14}O_4$ .—Fine, wh. scales.—*Sol.* A.; sl. W.—*Sed.*; Hypn.—*Dose* 1-5 grains (0.06-0.3 Gm.).

*Lactucen.*—see **Lactucerin**

*Lactylphenetidin.*—see **Lactophenin**

**Lactyltropine Nitrate Merck** (800)  
 $C_{14}H_{17}NO.CO.CH(OH).CH_2.HNO_3$ .—Wh., cryst. powd.—*Sol.* A., W.—Cardiac Tonic.

*Lady's Slipper.*—see **Cypripedium**

**Laminaria**  
 (Tangle; Sea Tangle; Sea Girdle; Sea Staff).—The sea-weed *Laminaria Cloustoni* (digitata, Lam.), Edmondston. Algæ. Fucaceæ.—*Habit.*: Cold northern seas.—*Etymol.*: Lat. "lamina," a thin plate, referring to the form of the thallus; & "digitata," provided with "fingers," referring to its appearance.—*Constit.*: Laminarin; laminaric acid; iodides.—*Uses*: Substitute for sponge tents for dilating such parts as the uterine os, urethra, &c.

**Lanium**  
 (Blind Nettle; Dead Nettle; White Nettle; White Archangel; Nettle).—*Lanium album*, L. Labiate.—*Habit.*: Europe; introd. into U. S.—*Etymol.*: Fr. Grk. "lamia," a sp. of shark, i.e., from the dentate appearance of the ringent corolla.—*Constit.*: Lamine; pectin; tannin.—Hemost.; Alter.—*Uses*: Metrorrhag. (due to myoma), hemorrhagic metritis, & hemorrhoidal hemorrhage.—*Dose*: Tinct., 40 drops ev. 2 hrs.

*Lanain, Lanalin, or, Lanesin*=*Adeps Lanae*.—see **Lanum, Anhydrous**

**Lang's Picrocarmine-Eosine**  
 1 Gm. picrocarmine, 1 Gm. cosine, & 200 Ce. W.—*Uses*: Staining alcoholic objects (lower forms of animal life).

**Lang's Sublimated Solution**  
 3 to 12 Gm. mercuric chloride, 100 Ce. W., 5

Ce. acetic acid, 0.5 Gm. alum, & 10 Gm. sod. chloride.—*Uses*: For hardening fresh objects.

*Lanichol or Lanicol* = *Adeps Lanae Anhydrous*.—see **Lanum, Anhydrous**

*Lanolin* = *Adeps Lanae*—see **Lanum**

*Lantana Spinosa.*—see **Camara**

*Lanthanite, Artificial.*—see **Lanthanum Carbonate**

**Lanthanum Merck.** By Electrolysis.—Fused, globules (20000)

*Etymol.*: Fr. Grk. "Lanthano," I hide, because for a long time it remained hidden in cerite, in which it was discovered by Mosander in 1839.—*La.*—Fairly mall. & ductile, wh. metal; oxid. rapidly in air; decomp. W.—*Sp. Gr.* 6.163.—*Sol.*, acids.

**Lanthanum Carbonate Merck** (240)  
 (Artificial Lanthanite).  $La_2(CO_3)_3 + 3H_2O$ .—Wh., cryst. powd.—*Sol.*, readily in dil. mineral acids; insol. W.

**Lanthanum Chloride Merck** (240)  
 $La_2Cl_6 + 11H_2O$ .—Wh., transp., asymmetr. cryst.—*Sol.*, very eas. W., A.

**Lanthanum Nitrate Merck** (120)  
 $La_2(NO_3)_6 + 12H_2O$ .—Colorl., transp., asymmetr. cryst.—*Sol.*, very eas. W., A.—*Caut.* Keep well stoppered.

**Lanthanum Oxalate Merck** (160)  
 $La_2(C_2O_4)_3$ .—Wh., cryst. powd.—Insol. W.

**Lanthanum Oxide Merck.**—Anhydrous (180)  
 (Lanthanum Trioxide; Lanthanum Sesquioxide).— $La_2O_3$ .—Almost wh., amorph. powd.—*Sol.*, eas. in dil. mineral acids; insol. W.—*Uses*: Inst. of & better than lime in oxyhydrogen lights.

*Lanthanum Sesquioxide.*—see **Lanthanum Oxide**

**Lanthanum Sulphate Merck** (180)  
 $La_2(SO_4)_3 + 9H_2O$ .—Colorl., felted, acicular cryst.—*Sol.*, diffic. W.

*Lanthanum Trioxide.*—see **Lanthanum Oxide**

**Lanum Merck** (1)  
 (*Adeps Lanae Hydrosus Merck*; Hydrous Wool-fat, U. S. P.).—A superior wool-fat specially prepared from purified fat of sheep-wool for medical & pharmaceutical uses, & containing 25-30% water.—Yellowish-wh., unct. mass; freely takes up water & aqueous solutions.—*Misc.*, w. 1.8 parts water.—*Sol.* E., C., with turbidity.—*Uses*: Neutral, non-irritat., antisept., permanent emoll., & base for ointments & creams; extremely rapidly absorbed by the skin.

*Note.*—Free fr. foreign fats, acids, or alkalies, this article is particularly suitable for all uses requiring a specially careful choice of hydrous wool-fat.

**Lanum Anhydrous Merck** (1)  
 (*Adeps Lanae Anhydricus Merck*).—Purified wool-fat from *Ovis aries* (Sheep).—Yellowish,

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



semi-solid fat; peculiar odor; consists of cholesterol- & isocholesterol-esters of the higher fatty acids.—*Sol.* E., C.—*Uses:* As above.

*Note.*—Free fr. water, fats, acids, &c., hence this article is suitable for any purpose requiring the use of the anhydrous wool-fat.

*Lapis Calaminaris.*—see **Calamine**

**Lappa.**—*U. S. P.*

(Clobur; Bardana; Burdock).—Dried root (also herb & seed, though not official in U. S. P.) of *Aretium Lappa*, L., & some other spec. of *Aretium*. Composite, from plants of first year's growth.—*Habit.*: Europe; Northern Asia; naturalized in N. America.—*Etymol.*: "Lappa," fr. Celtic "llap," hand, Grk. "labein," to seize, *i.e.*, the thorny fruit seizes & holds fast to clothing, &c. "Aretium," fr. Grk. "arktos," bear, *i.e.*, the involucre of flower & fruit is rough. "Bardana," fr. Italian "barda," a horse cover, *i.e.*, referring to the great size of the lvs.—*Constit.*: *Root*: Volat. oil; tannin; bitter principle; inulin; fat; mucilage. — *Herb*: Mucilage; inulin, & tannin.—*Uses*: *Root*: Aper.; Diuret.; Diaphor.; Alter.; Depurative.—*Extern.*, also for swellings, hemorrhoids, burns, &c., & as a hair-grower.—*Herb*: Aper.; Diuret.; Antiscrofular.; Antisyphil.; Antirheumat.—*Extern.*, mixed with oil as appl. to atonic ulcers.—*Seeds*: Aper.; large doses Purgat.—*Doses*: *Root*: 30–120 grains (2–8 Gm.).—*Alcoh. extr.*, 4–8 grains (0.25–0.5 Gm.).—*Fld. extr.*, 30–60 ℥ (2–4 Ce.).

**Lard**

(Adeps; Axungia Porci).—Prepared purified internal fat fr. abdomen of *Sus scrofa*, L. (the Hog).—*Sol.* E., C., CS., B.; sl. in A.; insol. A., E. Sp. Gr., abt. 0.917 at 25° C.—*Melt.* 38–40° C.—*Uses*: As emollient; also pharm.—*Caut.* Keep cool, & in tight containers.

**Lard Benzoinated**

Prepared by heat. lard w. 2% benzoin in coarse powd. on water-bath for 2 hrs.—Antiseptic.—*Uses*: Skin affect.

**Largin** (35)

(Silver-protalbin, Lilienfeld).—Gray powd.; 11.1% silver.—*Sol.*, in abt. 10 W., G.; insol. A., E.—Bactericide & Astring.—*Uses*: Instead of silver nitrate.—*Extern.*, chiefly in gonorr., in 0.25–1.5% solut.—*Intern.*, in gastric or intest. ulcer.—*Dose* 5–8 grains (0.3–0.5 Gm.), in pills.

*Laricin.*—see **Agaricin**

**Larix**

(Tamarack; American Larch; Hackmetack).—Bark of *Larix americana*, Mich. Pinaceæ. (Coniferae).—*Habit.*: British America south to New Jersey, Indiana, & Minnesota.—*Etymol.*: Fr. Celtic "lar," fat, fr. the abundant oleoresin secreted by the tree.—Astring.; Antisep.—*Uses*: Catarrh. condit. of intest., & as gargle in diphth.—*Dose*: *Fld. extr.*, 30–60 ℥ (2–4 Ce.).

*Larix Cedrus.*—see **Cedrus**

*Larkspur.*—see **Delphinium**; **Staphisagria**

**Laserpitium**

(Laserwort; White Gentian; Radix Gentiana Alba).—Root of *Laserpitium latifolium*, L. Umbelliferae.—*Habit.*: Europe.—*Constit.*: Volat. oil; resin; laserpitin.—*Uses*: Tonic.

**Lasiosiphon**

Root of *Lasiosiphon anthyloides*, Meisn. Thymelaeæ.—*Habit.*: South Africa; Natal.—*Etymol.*: Grk. "lasios," raw, & "siphon," tube, *i.e.*, the perigynous tube is covered with rough hairs. "Anthyloides," fr. Grk. "anthos," flower, & "julos," beard, or bearded flower, *i.e.*, the flower is covered with rough hair.—*Uses*: Antidote for snake bite.

**Laudanine Merck.**—Pure, precipitated (9000

Alkaloid fr. opium.— $C_{20}H_{25}NO_4$ .—Yellowish-wh., cryst. powd.—*Sol.* B., C.; hot A.; sl. E.—*Melt.* 165–166° C.—Toxic; Tetanic, like strychnine.—*Intid.*, tannin, emetic, or stomach tube.—*Caut.* Poison!

**Laudanosine Merck** (20000

Alkaloid fr. opium.— $C_{21}H_{27}NO_4$ .—Yellowish-wh., cryst. powd.—*Sol.* A., E., C.; boil. B.—*Melt.* 89° C.—Tetanic poison.—*Caut.* Poison!

*Laur.*—see **Laurus**

*Laurel Camphor.*—see **Camphor**

*Laurene.*—see **Pinene**, **Dextrogyrate**

*Laurier Rose.*—see **Oleander**

**Laurocerasus**

(Cherry-bay; Cherry-laurel).—Lvs. of *Prunus Laurocerasus*, L. Rosaceæ. Drupaceæ.—*Habit.*: Fr. Western Asia to Southern Europe.—*Etymol.*: Fr. Lat. "laurocerasus," fr. "laurus," laurel, & "cerasus," cherry, *i.e.*, the lvs. resemble those of the laurel, while the fruit resembles cherries.—Lvs. are up to 6 in. (15 Cm.) long;  $\frac{1}{5}$ –2 in. (2–5 Cm.) wide; oblong; serrate; odor of bitter almonds; aromat., bitter taste.—*Constit.*: Amygdalin (more properly laurocerasin); tannin; sugar; fatty matter; phyllic acid,  $C_{12}H_{14}O_{16}$ .—Anodyne; Antispasm.; Sedat.; Narcot.

**Laurus**

(Sweet Bay; Bay; Noble Laurel; Bayberry).—Lvs. & fruit of *Laurus nobilis*, L. Lauraceæ.—*Habit.*: Mediterranean region; cultv. in Mexico.—*Etymol.*: Fr. Celtic "blawn," or "lauer," green; or perhaps fr. Lat. "laus," praise, as the laurel was given to victorious soldiers.—Lvs. 2–4 in. (5–10 Cm.) long; pellucid-punctate; smooth; aromat. odor; astring. taste.—Fruit, oval drupes abt.  $\frac{1}{2}$  in. (12 Mm.) long; when dry, are wrinkled, green, black, or blackish-brown, & fragile.—*Constit.*: Volat. oil; fruit also contains fixed oil.—Stomach.; Spice.—*Uses*: As appl. in insect bites, stings, &c.; also in leucor.—Fruit also source of expressed oil bay.

*Louth's Violet.*—see **Thionine**

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 14=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Lavender**

(Garden Lavender, True Lavender).—*Lavandula vera* (off. name), D. C. Labiate.—*Habit*.—Mediterranean region. *Leaves*.—1 or 2 lat. "lavare," to wash, referring to the use made of its distilled water in baths & in perfumery.—*Consist.*—Volatile oil.—*Uses*.—Stim.; Carmin.; Nervine, Eucaline. Also for fumigation, in perfumery, to keep the linen from moth, &c., & in manuf. of oil.

*Lacmia Alba*.—see **Henna**

**Lead Merck.**—Highest Purity, powder (2)

*Typical*.—Lead fr. Anglo-Saxon "lead," Old English "led," or "leed," a plummet, heavy. Named "plumbum nigrum" by the Romans to distinguish it from "plumbum album" by which name tin was designated.—*Pb*.—Bluish-gray, soft metal.—*Sol.*, nitric acid.—*Melt*. 330-335° C.—*Sp. Gr.* 11.37.—*Uses*.—Techn. & chem.

**do.** Merck.—Pure, sticks & ribbon (2)

Prepared by casting, rolling, & drawing.—*Uses*.—As solder; in comb. w. arsenic in making shot; manuf. of lead carbonate; making cables; as insulator in electrotechnic apparatus; lining for acid-proof vessels; storage batteries; manuf. white lead, &c.

**do.** Merck.—Granular & sheets.—Free fr. silver (1)

**Lead Acetate Merck.**—Pure, cryst., powd., or gran. (1)

(Normal Plumbic Acetate; Sugar of Lead).—*Pb*  $\text{CH}_3\text{COO}_2 + 3\text{H}_2\text{O}$ .—Efflores., colorl., shin., transp. cryst.; acetous odor; sweet, metal. taste.—*Sol.* 2.3 W. (2 W. at 25° C., 1° S. P.); 0.5 boiling W.; 30 cold A.; 1 boiling A.; 3 C.; 5 G.—*Melt*. 280° C.—Loses its water of cryst. at 100° C.—*Astring.*; *Styp.*; *Antihidr.*—*Uses*.—*Intern.*, diarr., dysent.; gastr., uterine, & intest. hemorrhages; in bronchoblenorrhoea, pulmon. edema, aortal aneurism, & phth. night-sw.—*Extern.*, as astring., eye lotion, & inject. or wash (1:100-1:500 W.) for gonorr.—*Techn.*, widely used in dyeing & printing cottons; manuf. varnishes, hair dyes, lead-acetate paper, &c.—*Dose* 1-4 grains (0.06-0.25 Gm.), usually combined w. opium. For children,  $\frac{1}{20}$  grain (0.003 Gm.) for each year of age.—*Antid.*, emetics, stomach siphon; sodium, potassium, or magnesium sulphate; milk, albumen, opium (in pain), lumbar inj. of cocaine hydrochl. ( $\frac{1}{2}$  grain [0.03 Gm.] to 45 ml [3 Cc.] water).—*Incomp.*, acids, sulphates, chlorates, tartrates, carbonates, alkalies, tannin, phosphates, resorcinol, salicylic acid, carbolic acid, hydrated chloral, sulphites, vegetable infusions & tinctures.—*Caut.*—Poison!

**Lead Acetate Merck.**—Reagent (3)

*Pb*  $\text{CH}_3\text{COO}_2 + 3\text{H}_2\text{O}$ .—Colorl., transl. cryst.—*Sol.* 2.3 W.; 29 A. (85%). All aq. soluts. should be prep. fr. water freed from  $\text{CO}_2$  by boil.—*Tests*.—(Earths; Alkalies) 5 Gm. + 100 Cc.  $\text{H}_2\text{O}$ ; pass in  $\text{H}_2\text{S}$  gas till all *Pb* pptd.; filter; evap.

filtrate & ignite—wt. of res. not more than 0.001 Gm.—(Cu; Fe) 2 Gm. + 40 Cc.  $\text{H}_2\text{O}$  + 50 Cc.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96), when ppt. settled, filter—ppt. must be pure white; & filtrate must be colorl.—*PbCO*; *Impur.* *Insol.*  $\text{H}_2\text{O}$  5 Gm. + 50 Cc.  $\text{H}_2\text{O}$  solut. should be clear or only v. sl. opalesc.—*Ch.* acidul. 1-30 aq. solut. w.  $\text{HNO}_3$  & a 11 solut.  $\text{AgNO}_3$ —no turb.—( $\text{HNO}_3$ ) 1 Gm. + 30 Cc.  $\text{H}_2\text{O}$  + 1 drop indigo solut. + 15 Cc. conc.  $\text{H}_2\text{SO}_4$ —blue color should not disapp.—*Uses*.—Determin. chromic & molybdic acids; precip. tannic, malic, & oxalic acids; prepar. lead paper; in reagents f. dextrose, cotton-seed oil, dextrin, & indican.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Lead Acetate Merck.**—Basic (3)

(Tribasic Lead Acetate).—*Pb*  $(\text{C}_2\text{H}_3\text{O}_2)_2 \cdot 2\text{PbO}$  +  $\text{H}_2\text{O}$ .—Lustr., wh. micro-need.—*Uses*.—Techn., for weighting silks.

*Lead Acetate, Monobasic.*—see **Lead Subacetate**

**Lead Acetate Paper**

Wh. paper impregnated w. a solut. lead acetate.—*Uses*.—For detection of hydrogen sulphide & alkali sulphides (black color with much  $\text{H}_2\text{S}$ ; brown color w. small amounts).

*Lead Acetate, Tribasic.*—see **Lead Acetate, Basic**

**Lead Acetotartrate Merck** (25)

Colorl. cryst.—*Sol.* W.—*Astring.*; *Antisep.*—*Uses*.—As of acetate.

**Lead Antimonate Merck** (7)

(Naples Yellow).—*Pb*  $(\text{SbO}_4)_2$ .—Orange-yellow pigment.—*Uses*.—Techn., as pigment in oil painting, & staining glass, crockery, & porcelain.

**Lead Benzoate Merck** (3)

*Pb*  $(\text{C}_6\text{H}_5\text{O}_2)_2 + \text{H}_2\text{O}$ .—Wh., cryst. powd.—*Sol.*, sl. W.

*Lead Betanaphthalenesulphonate.*—see **Lead Naphthalenesulphonate**

*Lead Bichromate.*—see **Lead Dichromate**

**Lead Borate Merck** (2)

*Pb*  $(\text{BO}_3)_2 + \text{H}_2\text{O}$ .—Wh. powd.—*Sol.*, dil.  $\text{HNO}_3$ .—*Uses*.—Techn., drier for varnishes & paints.

**Lead Bromate Merck** (12)

*Pb*  $(\text{BrO}_3)_2$ .—Colorl. cryst.—*Sol.*, hot W.

**Lead Bromide Merck** (5)

*PbBr*.—Wh. powd.—*Sol.*, hot W.

**Lead Butyrate Merck** (20)

*Pb*  $(\text{C}_4\text{H}_7\text{O}_2)_2$ .—Colorl. plates.—*Melt.*, in hot W.

*Lead Carbolate.*—see **Lead Phenate**

**Lead Carbonate Merck.**—Highest Purity (1)

(Sub-, or Basic, Lead Carbonate; White Lead; Ceruse).— $2\text{PbCO}_3 \cdot \text{Pb(OH)}_2$ .—Perfectly wh.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



masses or powd.—*Sol.*, acetic acid; dil. nitric acid.—*Antiseptic.*—*Uses:* *Extern.*, dust. powd. for burns; 10% oint. for indol. ulc., skin dis., inflamed excoriat. surf., erysip., & carbuncles; injurious as face powder.—*Caut.* Poison!

### Lead Carbonate Merck.—Purified (1)

*Uses:* Techn., as pigment in water colors & oil paints; in the latter, with raw linseed oil, poppy-seed oil, fat varnishes; also in cements, & for making lead-carbonate paper.

*Lead Carbonate, Basic.*—see **Lead Carbonate**

### Lead-Carbonate Paper

(White-Lead, or "Polka" Paper; Schott's Paper).—Prepared by coating sized paper w. white lead.—*Uses:* Indicator in titrating metallic salts w. sodium sulphide (dark-brown color); also for detecting hydrogen sulphide.

### Lead Chloride Merck.—Pure (2)

$\text{PbCl}_2$ .—Wh., cryst. powd.—*Sol.* 140 W., 200 A.

#### do. Merck.—Commercial (1)

*Uses:* Techn., in various proportions with lead oxide as a pigment (Pattison's white lead, Verona Yellow, Turner's Patent Yellow).

### Lead Chromate Merck.—Pure, fused; lumps, gran., or powder (2)

$\text{PbCrO}_4$ .—Brownish-black lumps or brown powd.—*Sol.*, acids.—*Uses:* Oxidizer in organ. chemistry, & organic analysis.

#### do. Merck.—Pure, precipitated (2)

(Chrome, Paris, Leipzig, or Lemon, Yellow).— $\text{PbCrO}_4$ .—Fine, lemon-yellow powd.—*Uses:* Techn., pigment (in oil paints & water colors), printing fabrics, & dyeing.

### Lead Chromate Merck.—Reagent (3)

$\text{PbCrO}_4$ .—Yellowish-brown powd. or brown lumps.—*Sol.*, alm. compl. in  $\text{HNO}_3$ , caust. fixed alkalis; insol. W.,  $\text{NH}_4\text{OH}$ .—*Tests:* (*Impur. Solub. in  $\text{H}_2\text{O}$* ) 5 Gm. + 50 Cc.  $\text{H}_2\text{O}$  (at abt. 50° C.); shake for 5 min.; filter; evap. filtrate & ignite—wt. of res. not more than 0.001 Gm.—(*Organ. Substcs.*) on ignition, no  $\text{CO}_2$  evol.—*Uses:* Ultimate analysis of organic substances cont. sulphur, & material diffic. of combustion.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### Lead Chromate.—Basic (1)

(Chrome, or Persian, Red; Austrian Cinnabar).— $\text{PbCrO}_4 \cdot \text{PbO}$ .—Red cryst., or fine, red powd.—*Uses:* Techn.

### Lead Citrate Merck (4)

$\text{PbHC}_6\text{H}_5\text{O}_7$ .—Wh., cryst. powd.—*Sol.* W.

### Lead Cyanate Merck (20)

$\text{Pb(CNO)}_2$ .—Wh., cryst. powd.—Insol. W.

### Lead Cyanide Merck (5)

$\text{Pb(CN)}_2$ .—Wh. powd. — *Sol.*, in KCN solut.; insol. W.—*Uses:* Techn.

### Lead Dichromate Merck (20)

(Lead Bichromate).— $\text{PbCr}_2\text{O}_7$ .—Brick-red powd.—Insol. W.

### Lead Dioxide.—see **Lead Oxide, Brown**

### Lead Ethylsulphate Merck.—Liquid (4)

(Lead Sulphovinate).— $\text{Pb(C}_2\text{H}_5\text{SO}_4)_2 + \text{aq.}$ .—Colorl. liq.—66% lead ethylsulphate.—*Sol.* W.

### Lead Ferrocyanide Merck (3)

$\text{Pb}_2\text{Fe(CN)}_6$ .—Yellowish-wh. powd.—Insol. W.

### Lead Fluoride Merck (6)

$\text{PbF}_2$ .—Wh. powd.—*Sol.*, sl. in W.

### Lead Formate Merck.—Pure, cryst. or dried (8)

$\text{Pb(CHO}_2)_2$ .—Lustrous, wh., rhombic prisms, or need.; sweet, styptic taste.—*Sol.* W.

*Lead Hydrate.* } —see **Lead Oxide, Hydrated**  
*Lead Hydroxide.* }

### Lead Hypophosphite Merck (8)

$\text{Pb(H}_2\text{PO}_2)_2$ .—Wh., hygrosc. powd.—*Sol.* W.

### Lead Hyposulphate Merck (15)

$\text{PbS}_2\text{O}_6 + 4\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W.

*Lead Hyposulphite.*—see **Lead Thiosulphate**

### Lead Iodide Merck.—Cryst. or powder (4)

$\text{PbI}_2$ .—Golden-yellow cryst. or powd.—*Sol.*, alkalis, potass. iodide; 200 boil. W.—*Uses:* *Intern.*, in serof., phthisis, & syphilis.—*Extern.*, indol. ulcers.—*Techn.*, bronzing, gold pencils, mosaic gold, printing, & in photography.—*Dose* 1–4 grains (0.06–0.25 Gm.).—*Max.* D. 8 grains (0.5 Gm.) p. day.—*Appl.*, in oint. (1–2 10 lanum or fat).—*Caut.* Keep fr. light.

### Lead Lactate Merck.—Cryst. (9)

$\text{Pb(C}_2\text{H}_3\text{O}_2)_2$ .—Heavy, wh., cryst. powd.—*Sol.* W.—*Caut.* Keep well stoppered.

### Lead Linoleate Merck.—Fused (1)

Yellowish-brown, plaster-like mass.—*Sol.* C., & hot linseed oil.—*Uses:* Techn., in varnishes (1 part dissolved in 15–20 linseed oil at 120–150° C., then added to balance of oil).

### Lead Malate Merck.—Pure (25)

$\text{PbC}_4\text{H}_5\text{O}_5 + 3\text{H}_2\text{O}$ .—Wh. powd.—*Sol.*, sl. W.

*Lead Metavanadate.*—see **Lead Vanadate**

### Lead Molybdate Merck (16)

$\text{PbMoO}_4$ .—Yellow powd.—*Sol.*,  $\text{HNO}_3$ ; insol. W.

*Lead Monosulphide.*—see **Lead Sulphide**

*Lead Monoxide.*—see **Lead Oxide, Yellow**

### Lead Naphthalenesulphonate Merck (12)

(Lead Betanaphthalenesulphonate).— $\text{Pb(C}_{10}\text{H}_7\text{SO}_3)_2$ .—Wh., cryst. powd.—*Sol.*, hot A.; insol. W.

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Lead Nitrate Merck. — Pure** (1)

$\text{Pb}(\text{NO}_3)_2$ . — Wh., translucent cryst. — *Sol.* 2 W.; v. sl. A. (1.85 W. at 25° C.; 0.75 boil. W.; alm. insol. A.—U. S. P.). — *Antisept.*, *Astring.* — *Uses:* *Intern.*, diarr., dysent., or inter- hemorrhage. — *Extern.*, in 1-10 oint.: sore nipples, cracked lips, chapped hands; aq. solut., ulc., or 1-100 inj. in gonorr. & leucorr. — *Techn.*, for matches, as mordant in dyeing & printing calico, & as source of other lead salts; pigment for paints & lakes, manuf. hyponitric acid, mordant for staining mother-of-pearl horn (combs); oxidizer in tar-dye industry; sensitizer in photography; & manuf. toys (winter scenes in glass, &c.). — *Dose* 1-1½ grains (0.06-0.1 Gm.). — *Max. D.* 1½ grains (0.1 Gm.) single; 5 grains (0.3 Gm.) p. d.

**do. Merck** (1)

**Lead Nitrite Merck. — Basic. — Cryst.** (2)

(Lead Subnitrite). — *Varia. comp.* — Yellow cryst. — *Sol.*, dil. nitric acid.

**Lead Oleate Merck** (3)

*React.-prod.*, sodium oleate & lead acetate. —  $\text{Pb}(\text{C}_{18}\text{H}_{33}\text{O}_2)_2$ . — Wh., oint.-like granules or mass. — 28% lead oxide. — *Sol.* A. E., oil turp., benzin. — *Antisept.*; *Astring.* — *Uses:* Oint. w. oleic acid; indol. ulc. & imperfectly granulating sores. — *Techn.*, in lacquers.

**Lead Orthophosphate, Normal.** — see **Lead Phosphate**

**Lead Oxalate Merck** (2)

$\text{PbC}_2\text{O}_4$ . — Heavy, wh. powd. — Insol. W.

**Lead Oxide Brown Merck. — Pure** (2)

(Lead Dioxide; Lead Peroxide; Anhydrous Plumbic Acid). —  $\text{PbO}_2$ . — Dark, puce-brown to black powd. — *Uses:* Anal. & techn.; in combin. w. amorph. phosphorus as ignition surface for phosphorus-free matches; also purif. alcohol, &c.

**do. Merck** (1)

**Lead Oxide Brown Merck. — Reagent. — Free fr. Manganese** (6)

(Lead Superoxide; Lead Dioxide). —  $\text{PbO}_2$ . — Dark-brown, amorph. powd.; 97.5-99%  $\text{PbO}_2$ . — Insol. W. — *Tests:* (Cl) 5 Gm. + 60 Cc.  $\text{H}_2\text{O}$  + 5 Cc.  $\text{HNO}_3$  (sp. gr. 1.153); boil; filter; to 30 Cc. filtrate add solut.  $\text{AgNO}_3$  — at most only sl. opalesc. turb. — ( $\text{H}_2\text{SO}_4$ ) 5 Gm. + 30 Cc. cold sat. aq. solut.  $\text{NaHCO}_3$ ; shake frequently 3-4 hrs.; filter; acidul. filtrate w.  $\text{HCl}$ ; boil 10 min. & add. 2 Cc. solut.  $\text{BaCl}_2$  — no ppt. ( $\text{BaSO}_4$ ) within 12 hrs. — (*Impur. Sol. in  $\text{H}_2\text{O}$* ) [ $\text{Pb}(\text{NO}_3)_2$ ] 2 Gm. + 60 Cc.  $\text{H}_2\text{O}$ ; boil; filter; evap. 40 Cc. filtrate & ignite — wt. of res. not more than 0.0005 Gm. — (*Ca; Alkal.*) 2 Gm. + 25 Cc.  $\text{HCl}$  (sp. gr. 1.124) + 200 Cc.  $\text{H}_2\text{O}$ ; boil 10 min. to expel Cl; pass in  $\text{H}_2\text{S}$  gas in excess; filter; evap. filtrate & ignite — wt. of res. not more than 0.002 Gm. — (*Mn*) 5 Gm. + 10 Cc. conc.  $\text{H}_2\text{SO}_4$ ; heat till decomp.; treat cold mass w. 20 Cc.  $\text{H}_2\text{O}$ , & add 5 Gm.  $\text{PbO}_2$ ; warm again — liq. must not acquire red

color. — *Uses:* Especially for detect. Mn; separ. Co & Ni.

*Note.* — For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Lead Oxide Brown Merck. — Reagent. — For Elementary Analysis accord. to Dennstedt** (4)

*Tests:* (Cl; Ca; Alkalies) as preceding. — ( $\text{H}_2\text{SO}_4$ ) 25 Gm. + 50 Cc. cold aq. sat. solut.  $\text{NaHCO}_3$ ; shake frequently for 3-4 hrs.; filter; acidul. filtrate w.  $\text{HCl}$ ; boil 10 min. & add 2 Cc. solut.  $\text{BaCl}_2$  — no ppt. within 12 hrs. — ( $\text{HNO}_3$ ) 1 Gm. + 5 Cc. dil.  $\text{C}_2\text{H}_5\text{O}_2$  + 10 Cc.  $\text{H}_2\text{O}$ ; boil; filter; add to filtrate 1 drop 1:1000 indigo solut. + 10 Cc. conc.  $\text{H}_2\text{SO}_4$  — blue color should not disappear. — ( $\text{H}_2\text{C}_2\text{O}_4$ ) 5 Gm. +  $\text{HNO}_3$  (sp. gr. 1.153) — no gas evolv. even when observed through magnifying glass. — *Uses:* Partic. in organic analysis of compounds cont. sulphur.

*Note.* — For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Lead Oxide Hydrated Merck. — Pure** (2)

(Lead Hydroxide; Lead Hydrate). —  $\text{Pb}_2\text{O}(\text{OH})_2$ . — Wh., amorph. powd. — *Sol.*, caustic alkal.; acetic & nitric acids. — *Uses:* Chem. anal.

**Lead Oxide Red Merck** (1)

(Red Lead; Minium; Plumbo-plumbic Oxide). —  $\text{Pb}_3\text{O}_4$ . — Bright-red powd. — *Sol.*, glac. acetic acid, hydrochloric acid; insol. W. — *Uses:* Plasters & oint's; also techn. in manuf. colorl. glass, glaze for faience, flux for porcelain painting, oil-color ship paints, varnishes; cement for glass, gas, & steam pipes; matches; pencils for writing on glass; lead peroxide, &c. — *Caut.* Poison!

**Lead Oxide Yellow** (1)

(Plumbous Oxide; Lead Protoxide; Litharge; Massicot; Lead Monoxide). —  $\text{PbO}$ . — Yellow to yellowish-red powd. — *Sol.*, acetic & nitric acids; insol. W. — *Uses:* Oint., plasters, &c.; also techn. for glazing pottery & faience, glass flux for painting on porcelain & glass, manuf. lead glass, varnishes, glass & metal cements, producing iridescent colors on brass & bronze, coloring sulphur-containing substances (hair, nails, wool, horn, &c.).

**do. Merck. — Pure** (1)

**Lead Oxide Yellow Merck. — Reagent** (4)

$\text{PbO}$ . — Yellow or reddish-yellow powd. — *Sol.*  $\text{HNO}_3$ ;  $\text{C}_2\text{H}_5\text{O}_2$ ; solut.  $\text{KOH}$ ; alm. insol. W. (1:12,000). — *Tests:* (*Impur. Insol. in  $\text{C}_2\text{H}_5\text{O}_2$* ) 2 Gm. + 5 Cc.  $\text{H}_2\text{O}$  + 10 Cc. dil.  $\text{C}_2\text{H}_5\text{O}_2$  — no gas evolv.; boil sev. min.; when cold, filter; collect insol. res., wash, & dry at 100° C. — wt. not more than 0.005 Gm. — ( $\text{H}_2\text{CO}_3$ ) ignite 5 Gm. by heat. to melt-point — should not lose more than 0.005 Gm. — (*Cu; Al*) 2 Gm. + 10 Cc.  $\text{HNO}_3\text{OH}$  (sp. gr.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



1.153)+5 Ce.  $\text{H}_2\text{O}$ ; heat; add to clear solut. 15 Ce. dil.  $\text{H}_2\text{SO}_4$ ; when ppt. deposited, filter off; add to filtrate excess  $\text{NH}_4\text{OH}$ —liq. should not acquire a blue color, or deposit a ppt.—( $\text{HNO}_3$ ;  $\text{HNO}_2$ ) 1 Gm.+5 Ce.  $\text{H}_2\text{O}$ +5 Ce. dil.  $\text{C}_2\text{H}_4\text{O}_2$ +1 drop solut. indigo+10 Ce. conc.  $\text{H}_2\text{SO}_4$ —blue color should not dissap.—(*Cl*) 1 Gm.+5 Ce.  $\text{HNO}_3$  (sp. gr. 1.153)+20 Ce.  $\text{H}_2\text{O}$ +solut.  $\text{AgNO}_2$ —no turb.—(*Earths; Gypsum; Alkalies*) 1 Gm.+10 Ce. dil.  $\text{C}_2\text{H}_4\text{O}_2$ +100 Ce.  $\text{H}_2\text{O}$ + $\text{H}_2\text{S}$  gas in excess; filter; evap. filtrate & ignite—wt. of res. not more than 0.003 Gm.—*Uses*: Analysis organic substances cont. halogens; flux in fusion of minerals; saponif. fats.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### Lead Oxychloride Merck

$\text{PbCl}_2 \cdot 3\text{PbO}$ .—Yellow powd.—Insol. W.

*Lead Peroxide*.—see **Lead Oxide, Brown**

### Lead Phenate Merck

(3)

(Lead Carbolate).—By boil. phenol w. litharge. — $\text{Pb}(\text{OH})\text{OC}_6\text{H}_5$ .—Yellowish to grayish-white powd.—*Sol.*, in nitric acid; insol. W. & A.

### Lead Phenolsulphonate (Para-) Merck

(12)

(Lead Sulphocarbonate).— $\text{Pb}(\text{C}_6\text{H}_4\text{OHSO}_3)_2 + 5\text{H}_2\text{O}$ .—Wh., lustr. need.—*Sol.* W., A.—Astring.; Antisept.—*Uses*: *Extern.*, skin dis., ulc., inflam., &c., inst. of zinc phenolsulphonate.

### Lead Phosphate Merck.—Highest Purity

(4)

(Normal Lead Orthophosphate).— $\text{Pb}_3(\text{PO}_4)_2$ .—Wh. powd.—Insol. W.

*do.* Merck.—Pure

(2)

### Lead Phosphite Merck

(5)

$\text{PbHPO}_3$ .—Wh. powd.—Insol. W.

*Lead Platinocyanide*.—see **Platinum & Lead Cyanide**

### Lead Propionate Merck.—Pure

(12)

(Normal Lead Propionate).— $\text{Pb}(\text{C}_2\text{H}_5\text{COO})_2$ .—Cryst. mass.—*Sol.* W.

*Lead Protioxide*.—see **Lead Oxide, Yellow**

### Lead Pyrophosphate Merck

(6)

$\text{Pb}_2\text{P}_2\text{O}_7 + \text{H}_2\text{O}$ .—Amorph., wh. powd.—Insol. W.

*Lead, Red*.—see **Lead Oxide, Red**

### Lead Resinate Merck.—Fused

(1)

*Uses*: Techn., in varnishes (2–3 parts dissolved in 100 linseed oil at 120–150° C., then added to balance of oil).

*do.* Merck.—Precipitated

(1)

*Uses*: As of preceding.

*Lead Rhodanide*.—see **Lead Sulphocyanate**

### Lead Salicylate Merck

(10)

$\text{Pb}(\text{C}_6\text{H}_4\text{OH}.\text{COO})_2 + \text{H}_2\text{O}$ .—Wh. cryst.—*Sol.*, hot W., & A.

### Lead Selenate Merck

(125)

$\text{PbSeO}_4$ .—Wh. powd.—Insol. W.

### Lead Sesquioxide Merck

(10)

$\text{Pb}_2\text{O}_3$ .—Reddish-yellow powd.—Insol. W.

### Lead Silicate Merck

(2)

$\text{PbSiO}_3$ .—Wh., cryst. powd.—Insol. W. & acids. —*Uses*: Techn., manuf. crystal & flint glass, strass, fluxes for painting on glass & porcelain, enamels & glaze for earthenware, fireproofing fabrics, &c.

### Lead Silicofluoride Merck

(2)

$\text{PbSiF}_6 + \text{H}_2\text{O}$ .—Wh., cryst. powd.—*Sol.* W.

*Lead-sodium Hyposulphite*.—see **Lead & Sodium Thiosulphate**

*Lead Sozoiodolate*.—see **Sozoiodole-Lead**

### Lead Stearate Merck

(3)

$\text{Pb}(\text{C}_{18}\text{H}_{35}\text{O}_2)_2$ .—Yellowish, crumbly powd.—*Sol.*, hot A.; insol. W.

### Lead Subacetate Merck.—Cryst.

(3)

(Monobasic Lead Acetate).— $\text{Pb}_2\text{O}(\text{CH}_3\text{COO})_2$  (approx.).—Wh. powd.—*Sol.*, eas. W. w. alkal. reaction.—*Uses*: Prep. solut. lead subacetate.

*do.*—Solution.—*U. S. P.*

(1)

(Goulard's Extract).—25% subacetate of lead. — $\text{Pb}_2\text{O}(\text{CH}_3\text{COO})_2$ .—Clear, colorl. liq.; sweetish, astring. taste.—*Sp. Gr.*, abt. 1.235 at 25° C. —*Misc.* W.—Astring.; Antisept.; Sed.

*do.*—Solution, Dilute.—*U. S. P.*

(Lead Water).—Abt. 1% subacetate of lead.—Clear, colorl. liq.; sweetish, astring. taste.—*Misc.* W.—Astring.; Antisept.; Sed.—*Uses*: *Extern.*, burns, blisters, sprains, bruises, inflam., eye-washes, erysipelas, gonorr. inject., &c.—*Incomp.*, alkalies, carbonates of alkalies, sulphuric acid, & sulphates, hydrochl. acid & chlorides, tannin & tannates, albuminous substances, acacia, &c. —*Caut.* Keep well stoppered.

### Lead Subacetate Merck.—Reagent.—Solution

(1)

Clear, colorl. liq.; alkal. to litmus paper, but does not redden phenolphthalein.—*Sp. Gr.* 1.235–1.240.—*Tests*: (*Cu*); (*Fe*) 10 Ce.+2 Ce. dil.  $\text{C}_2\text{H}_4\text{O}_2$  + solut.  $\text{K}_4\text{Fe}(\text{CN})_6$ —pure wh. ppt.—*Uses*: Detect. benzoic & formic acids; precipitant; clarifier; differentiating dioxybenzenes.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

*Lead Subcarbonate*.—see **Lead Carbonate**

*Lead Subnitrite*.—see **Lead Nitrite, Basic**

*Lead, Sugar of*.—see **Lead Acetate**

### Lead Sulphate Merck.—Highest Purity

(1)

$\text{PbSO}_4$ .—Wh., cryst. powd.—*Sol.*, hot conc.  $\text{HCl}$  or  $\text{HNO}_3$ ; warm ammonia; solut. amm. acetate or tartarate.—*Uses*: Techn.

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Nyosayamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Lead Sulphate Merck** (1)  
*Uses.* Techn., mat. of white lead as pigment; also w. zinc in galvanic batteries; manuf. of minimum, & for prep'g rap. drying oil varnishes.

**Lead Sulphide Merck.**—Pure, fused (2)  
 (Plumbous Sulphide, Lead Monosulphide).— $\text{PbS}$ .—Prep. by fusing together lead & sulphur.—Lead-gray, cryst. solid.—*Uses.* Techn., for glazing earthenware.

**do. Merck.**—Wet process (2)  
 By precip. lead salts w. hydrogen sulphide.—Black powd.—*Sol.*, dil. nitric acid.—*Uses.* Techn., as decolorizer of plant acids.

**Lead Sulphite Merck** (2)  
 (Normal Plumbic Sulphite).— $\text{PbSO}_3$ .—Crumbly, white, insol. powd.—Antisept.; Astring.—*Uses.* *Extern.*, in erysip., scabies, ecz., inj. surf. & var. skin affect., in 1-10% oint.

**Lead Sulphocarbonate.**—see **Lead Phenolsulphonate (Para-)**

**Lead Sulphocyanate Merck** (1)  
 (Lead Sulphocyanide or Rhodanide).— $\text{Pb}(\text{SCN})_2$ .—Yellowish, micro-cryst. powd.—*Sol.*, hot W.

**Lead Sulphocyanide.**—see **Lead Sulphocyanate**

**Lead Sulphovinate.**—see **Lead Ethylsulphate**

**Lead Superoxide.**—see **Lead Oxide Brown**

**Lead Tannate Merck.**—Dry (4)  
 Brownish-yellow, odorl., tastel., amorph. powd.—*Sol.*, sl. W. or A.—Astring.; Antisept.—*Uses.* *Extern.*, wh. swell. of knee, gangr. ulcers, bed sores, excoriated surf., sore nipples, &c.—*Appl.*, in subste. or in 10-20% oint.

**Lead Tartrate Merck** (3)  
 $\text{PbC}_4\text{H}_4\text{O}_6$ .—Wh. powd.—Insol. W.

**Lead Tetraethyl Merck** (600)  
 $\text{Pb}(\text{C}_2\text{H}_5)_4$ .—Colorl. liq.—*Boil.* 200° C., not without decomp.—*Sp. Gr.* 1.62 at 15° C.—Insol. W.—Burns w. an orange-colored flame the margin of which is green.

**Lead Thiosulphate Merck** (1)  
 (Lead Hyposulphite).— $\text{PbS}_2\text{O}_3$ .—When freshly prepared, a white powd. which on long keeping darkens (formation of lead sulphide).—*Sol.*, in solut. of alkali thiosulphates; v. sl. in W.

**Lead Tungstate Merck** (6)  
 (Lead Wolframate).— $\text{PbWO}_4$ .—Yellowish, insol. powd.

**Lead Vanadate Merck** (9)  
 (Lead Metavanadate, or Vanadinate).— $\text{Pb}(\text{VO}_3)_2$ .—Yellow powd.—Insol. W.

**Lead Water.**—see **Lead Acetate, Basic, Solution, Dilute**

**Lead, White.**—see **Lead Carbonate**

**Lead Wolframate**—see **Lead Tungstate**

**Lead & Manganese Linoleate Merck.**—Fused (1)  
 Dark brown, plaster-like mass.—*Sol.* C., & hot linseed oil.—*Uses.* Techn., in varnishes (1 part dissolved in 100 linseed oil at 120-150° C., then added to balance of oil).

**Lead & Manganese Resinate Merck.**—Fused (1)  
 Brownish-black, resin-like pieces.—*Sol.* C., linseed oil.—*Uses.* Techn., in varnishes (2-3 parts dissolved in 100 linseed oil, at 120-150° C., then added to balance of oil).

**Lead & Sodium Thiosulphate Merck** (8)  
 (Lead-sodium Hyposulphite).— $\text{PbS}_2\text{O}_3 \cdot 2\text{Na}_2\text{S}_2\text{O}_3$  (Lenz).—Sm., wh., heavy cryst.—*Sol.*, thiosulphate solut'ns.—*Uses.* Techn., manuf. matches.

**Leather Yellow.**—see **Chrysaniline Yellow**

**Lecithin Merck** (140)  
 (Oyo-lecithin).—Phosphorus-containing constituent of brain substance; obtained fr. egg-yolk. Important in the vital processes of plant & animal organisms.— $\text{C}_{44}\text{H}_{84}\text{NPO}_8$  or  $\text{C}_{44}\text{H}_{84}\text{NPO}_7$ .—Yellowish-wh. waxy mass.—*Sol.* A., C., E., & fatty oils; swells up in water & in sodium-chloride solut.—Tonic.—*Uses.* Neurasth., nervous affections, tuberculosis, diarr., tabes, osteomalacia, rachitis, disturbances of nutrition, &c.—*Doses.* 3-8 grains (0.2-0.5 Gm.) daily; in mental affections up to 15 grains (1 Gm.) daily.—*Subst.*, 15-45 M (1-3 Cc.) of a 5% solut. in olive oil.

**Ledum Palustre**  
 (Wild Rosemary; Marsh Tea; Marsh Rosemary; Swamp Tea; Marsh Cistus; Labrador Tea).—Whole plant *Ledum palustre*, L. Ericacea.—*Habit.*: Central & Northern Europe; Asia; North America.—*Constit.*: Volat. oil; tannin; ericolin,  $\text{C}_{26}\text{H}_{30}\text{O}_2$ .—*Uses.*: Narcot. (in whoop.-cough); Febrif.; Insecticide.

**Leech Extract.**—see **Extract Leech**

**Legumin Merck** (50)  
 (Plant Casein).—Nuclein substance fr. leguminous plant seeds.—Wh. to yellowish powd.—*Sol.*, dil. alk., v. dil. acids.—See also Avenin.

**Leicocm.**—see **Dextrin, Technical**

**Leipzig Yellow.**—see **Lead Chromate, Precipitated**

**Lemon Balm.**—see **Melissa**

**Lemon Peel.**—U. S. P.  
 (Limonis Cortex).—Recently separated outer rind of ripe fruit of *Citrus Limonum*, Risso. Rutaceae. (Aurantiaeeae).—*Habit.*: Northern India; cultivated in West Indies, Spain, & other tropical countries.—*Etymol.*: "Citrus" fr. Grk. "kitron," citron tree, fr. "kitrion," after the town Citron in Judea, where it formerly flourished. "Limonum" fr. Arab. "limun," or "limu," fr. Sanskrit "nimbuka."—*Constit.*: Volat. oil; hesperidin,  $\text{C}_{22}\text{H}_{26}\text{O}_{12}$ ; bitter extract-

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



ive.—Corrig.; Tonic; Refrig.; Antiscorbutic.—  
*Uses:* Febrile & inflam. diseases; also in cookery  
& confectionery.

**Lemon Yellow.**—see **Lead Chromate, Precipitated**

### Lenicet

(Aluminum Acetate). —  $\text{Al}_2\text{O}_3 \cdot (\text{C}_2\text{H}_4\text{O}_2)_2$ . — V. fine, volumin., wh. powd.; v. diffie. solub.; non-hygroscopic.—Siccative; Deodorant.—*Uses:* Hy-peridrosis, &c.—*Appl.*, pure or in 20–50% mixt. w. talcum.

### Lenigallol

(20)

(Pyrogallol Triacetate Knoll). —  $(\text{CH}_3\text{COO})_3\text{C}_6\text{H}_3$ . — Wh. cryst.—*Sol.*, hot A., & aqu. solut. alkalies; alm. insol. W.—*Melt.* 172° C.—*Uses:* As mild pyrogallol preparation in psoriasis & eczema.—*Appl.*, in oint. (0.5–5:100 zinc paste).

### Leni-robin

(20)

(Chrysarobin Tetracetate Knoll).—Yellow powd.—*Sol.* C., acetone, B.; insol. W.—Mild “reactive” or “reducing” Dermic.—*Uses:* Succeed. for chrysarobin, especially in herpes, tylosis, & keratosis; reported non-toxic, non-irrit., non-staining.—*Appl.*: *Extern.*, like chrysarobin.

### Lentin Merck

(50)

Medicinal grade of metaphenylenediamine hydrochloride. —  $\text{C}_6\text{H}_4(\text{NH}_2)_2 \cdot 2\text{HCl}$ . — Colorl. to reddish cryst. powd.—*Sol.* W., A.—*Uses:* In acute diarrheas caused by contaminated food, tuberculosis, amyloid condition of intestinal walls, &c.—*Doses:* Children,  $\frac{1}{6}$  grain (0.01 Gm.) 3 t. p. d.; adults,  $\frac{1}{2}$  grains (0.1 Gm.) 3 t. p. d.—*Max. D.* 5 grains (0.3 Gm.).

### Leontodin (Eclectic)

(40)

Extr. fr. root *Taraxacum officinale*, Weber (Dandelion).—Dark-brown powd.—*Sol.* A.—Tonic; Diur.; Aper.—*Uses:* Liver & spleen dis.—*Dose* 2–4 grains (0.12–0.25 Gm.).

### Leonurus

(Motherwort; Lion's Tail).—Herb of *Leonurus Cardiaea*, L. Labiate.—*Habit.*: Europe & northern Asia; natur. in U. S.—*Etymol.*: Grk. “leon,” lion, & “oura,” tail, i.e., the spikes of flowers were supposed to bear some resemblance to a lion's tail. “Cardiaea” refers to the supposed stimulant action of the plant.—*Constit.*: Bitter principle; alkaloid-like substance; hard & soft resins; fixed oil; wax.—Emmen.; Nerve Tonic.—*Uses:* Amenor., hyster., &c.—*Dose:* Fld. extr., 30–60  $\text{m}$  (2–4 Ce.).

**Leonurus Lanatus.**—see **Ballota**

### Lepidine Merck.

—Fr. Cinchonine (250)

(Gamma-Methylquinoline; Cincholepidine). —  $\text{C}_9\text{H}_7\text{C}(\text{CH}_3)\text{CH}(\text{CH}_3)\text{N}$ .—Oily liq., solid at 0° C.; odor like that of quinoline; turns red-brown in light.—Sp. Gr. 1.099 at 0° C.—*Sol.*, all prop., A., E., B.; sl. W.—*Boil.* 258–263° C.—*Caut.* Keep fr. light.

### Leprolin

Serum prepared fr. cultures of *lepra bacilli*.—*Uses:* Lepra.—*Dose*, abt. 150  $\text{m}$  (abt. 10 Ce.) inject. in gluteus or muscle of arm at intervals of fr. sev. days to 2 weeks.

### Leptandra.—U. S. P.

(Culver's Root; Black Root).—Dried rhizome & roots of *Veronica (Leptandra) virginica*, L. Scrophulariaceae.—*Habit.*: North America.—*Etymol.*: Grk. “leptos,” small, thin, & “aner,” man, i.e., referring to its two slender stamens. “Veronica,” fr. Grk. “pherein,” to bear, & “nike,” victory, or fr. Lat. “vera,” true, & Grk. “eikon,” image, i.e., flower of St. Veronica, thought to resemble Christ's face.—*Constit.*: Leptandrin; resin; saponin; tannin; mannit.—*Purgat.*: Emet.; Cholagogue; Alter.; Tonic.—*Uses:* Constip., liver diseases, diar., & dysent.—Supposed to act like calomel.—*Doses:* 15–60 grains (1–4 Gm.).—Fld. extr., 15–60  $\text{m}$  (1–4 Ce.).—Hydro-alcoh. extr., 3–10 grains (0.2–0.6 Gm.).—Tinct., 30–75  $\text{m}$  (2–5 Ce.).

### Leptandrin Merck.—Pure

(135)

Resinoid fr. rhizome *Veronica virginica*, L.—Brownish-yellow powd.—*Sol.* A.—Cholag.; Purg.; Alter.—*Uses:* Chronic constip., duodenal indigest., torpid liver, &c. Favorite w. the Eclectics inst. of mercurials.—*Doses:* Cholag. & alter., 1–3 grains (0.06–0.2 Gm.); purg., 8 grains (0.5 Gm.).

### do. Merck

(18)

Brown powd.—*Sol.* A.

**Lettuce, Wild.**—see **Lactuca**

### Leucæna

(Jumbai).—Lvs. of *Leucæna glauca*, Benth. Mimose.—*Habit.*: Central America; South America; West India.—*Etymol.*: Fr. Grk. “leukaincin,” to bleach, referring to the almost white color of the flowers.—*Uses:* Depilat.

### Leucine Merck.—Pure

(1750)

(Alpha-aminoisocaproic Acid).—Fr. horn shavings, by boil. w.  $\text{H}_2\text{SO}_4$  & water.— $\text{C}_6\text{H}_{12}\text{NO}_2$ , or,  $(\text{CH}_3)_2\text{CH}(\text{CH}_2)_3\text{COOH}$ .—Wh. powd.—*Sol.*, sl. W.; v. sl. A.—*Melt.* 170° C., w. sublim.

### Leucine Hydrochloride Merck

(1350)

$\text{C}_6\text{H}_{13}\text{NO}_2 \cdot \text{HCl}$ .—Wh. cryst.—*Sol.* W.

**Leucoalizarin.**—see **Anthrarobin**

### Leucodendron

Lvs. of *Leucodendron concinnum*, Proteaceae.—*Habit.*: Cape of Good Hope.—*Etymol.*: Fr. Grk. “leukos,” white, & “dendron,” tree.—*Constit.*: Proteacin (glucoside, very nearly allied to saligenin); leucoglycodrin; leucodrin.—*Uses:* Antiper. in malaria.

**Leucogen.**—see **Sodium Bisulphite**

**Leucoindophenol.**—see **Indophenol White**

**Leucoline.**—see **Quinoline**

**Levant Soapwort.**—see **Gypsophila**

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Levisticum**

(Lovage, Sea Parsley; Ligusticum).—Whole plant *Levisticum officinale* Koch. *Ligusticum Levisticum*, L. Umbelliferae. *Habit.*: Southern Europe.—*Etymol.*: "Levisticum," corrupted fr. "Lagaria," the name of the country where the plant abounded.—*Constit.*: Volat. oil; resin, latter principle; angelic acid.—*Uses*: *Herb.*: Arterial & nervous stimulant.—*Root*: Diuretic, in dropsy, also used in fetid breath, & amenor.—*Seeds*: Tonic.—*Dose*: *Root*: Fld. extr., 15-60 ℥ (1-4 Cc.).—*Alcoh. extr.*, 8-25 grains (0.5-1.5 Gm.).

**Levulose Merck.—Cryst.** (65

(Fructose; Fruit Sugar).—Fr. cane sugar by hydrolysis:  $C_6H_{12}O_6$  or  $CH_2OH.CO.CO.H(CH_2OH).CH(OH).CH(OH).CH_2OH$ .—Yellowish-wh., sweet cryst.—*Sol.* W., A.—*Uses*: Inst. of sugar in diabetes, & physiologico-chemical experiments.

**do. Merck.—Syrupy** (8

$C_6H_{12}O_6$  + mp.—Yellowish syrup.—*Uses*: Micros. & preserv. medium for fat & fat impregnations.

**Levurargyre**

Mercury-nucleoprotein obt. by gradually habituating beer-yeast to act. of  $HgCl_2$ .—*Uses*: Syph.—*Dose*: 30 ℥ (2 Cc.) of 1% solut.

**Liatris**

(Bear's Tongue; Vanilla Plant).—Lvs. of *Liatris Trihaia* odoratissima, Willd. Compositae.—*Habit.*: U. S. (Virginia to Florida & Louisiana).—*Etymol.*: Fr. Grk. "leios," smooth, & "latros," physician.—*Constit.*: Volat. oil; cumarin.—*Stim.*: Tonic.—*Uses*: Nervous affect., & said to be of benefit in whoop-cough.—*Techn.*, perfumery, & perfuming tobacco (smoking, chewing, & snuff).—*Dose*: Fld. extr., 30-60 ℥ (2-1 Cc.).

**Lichenin Merck** (250

(Moss Starch).—Carbohydrate fr. *Cetraria islandica*, Acharius (Island Moss).— $(C_{12}H_{20}O_{10})_n$ .—Wh., gelat. mass, or wh. powd.—*Sol.*, boil. W.; hydrochl. acid.—Demulcent.

**Lichtensteinia**

Root of *Lichtensteinia interrupta*, E. M. Umbelliferae.—*Habit.*: South Africa; Natal.—*Etymol.*: Named for Martin Heinrich Karl Lichtenstein, a German physician & naturalist (1780-1857).—*Uses*: Antiper. in fevers accompanied by an enlarged spleen.

**Licorice.—see Glycyrrhiza**

**Licorice; Indian, or Wild.—see Abrus**

**Life Everlasting.—see Gnaphalium**

**Life Root.—see Senecio Aureus**

**Light Green.—see Methyl Green**

**Lignum Vitæ.—see Guaiacum Wood**

**Ligroin, Light.—see Canadol**

**Ligusticum.—see Levisticum**

**Ligustrin.** } **see Syringin**

**Lilacin.** }

**Lilacine.—see Terpeneol**

**Lily-of-the-Valley.—see Convallaria**

**Lime.—see Calcium Oxide**

**Lime, "Chloride of."—see Lime Chlorinated**

**Lime Chlorinated** (1

(Bleaching Powder; "Chloride of Lime"; "Calcium Hypochlorite").—Fr. act. chlorine on lime; cont. not less than 35% avail. chlorine— $Ca(ClO)_2 + CaCl_2 + 2H_2O$ , or,  $CaCl_2(ClO) + H_2O(?)$ .—Compos. variable.—Deliq., wh. powd.; strong odor of hypochlorous acid; unpleas., saline taste.

—*Sol.*, partly in W.—Bleach.; Disinf.—*Uses*: As a gen'l disinfectant.—*Extern.*, in eye-washes & gargles (1:25), compresses (7.5-15, 5000), & in 1:9 oint. in frostbites, & 1:1000 solut. as inject. in gonorr.—*Techn.*, bleach. agent; oxidizer in calico printing for obtaining white designs on a colored ground; removing fusel oil fr. alc.; destroy. caterpillars.—*Antid.*, ammonia vapors, ether, steam.—*Caut.* Keep dry, fr. air.

**Lime Chlorinated Merck.—Reagent.—Cubes** (1

Wh. cubes; Cl odor; evolves at least 25% Cl on add. HCl.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Lime Hypophosphite.—see Calcium Hypophosphite**

**Lime, Liver of.—see Lime Sulphurated**

**Lime Saccharated.—see Calcium Saccharate**

**Lime Slaked.—see Calcium Hydroxide**

**Lime Sulphurated Merck** (1

(Calcic Liver of Sulphur; Liver of Lime; Hepar Calcis; Crude Calcium Sulphide).—Mixt. calcium monosulphide (at least 55%) & sulphate, w. carbon, obt. by calcin. calcium sulphate w. carbon & starch.—Yellowish-gray powd.; odor of hydrogen sulphide; unpleas. alkali taste.—*Sol.*, v. sl. cold W.; more read. in boil. W., w. part. decomp.; insol. A.—Antipytic; Alter.; Depil.—*Uses*: *Intern.*, smallpox, erysipelas, scarlet fever.—*Extern.*, acne, furuncular erup. Also used in Hahnemann's wine test, as depilatory in tanning, & manuf. luminous paints, &c.—*Dose*: As prophylactic for influenza, 1 grain (0.06 Gm.) daily, in pills.—In measles, erysip., & scarlet fever, 1½-3 grains (0.1-0.2 Gm.) single; & 30-40 grains (2-2.6 Gm.) daily.—*Appl.* 1-3:25 oint.—Also in baths (2-4 oz., [60-120 Gm.] per bath).—*Caut.* Keep fr. air.

**do.—Solution.—N. F.**

(Vleminek's Solution; Solution Calcium Oxy-sulphuret).—By boil. 165 lime (slaked) w. 250 Gm. sulphur & W. to make 1000 Gm.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Lime-Water*.—see **Calcium Hydroxide, Solution**

*Limonene, Inactive*.—see **Dipentene**

*Limonis Cortex*.—see **Lemon Peel**

# **Linalool Merck** (20

$C_{10}H_{18}O$ .—Chief constit. of linalool oil.—Colorl. liq.—Sp. Gr. 0.873 at 15° C.—Boil. 195–199° C.—Odor like that of oil bergamot & of French oil lavender, hence linalool is sometimes added to these oils; also used in perfumery (in Extr. de Muguet).

# **Linaria**

(Toad Flax; Snap Dragon; Ramsted).—Whole plant *Linaria vulgaris*, Miller. Scrophulariaceae.—Habit.: Europe; natur. in U. S.—Etymol.: Lat. “linum,” flax, referring to the flax-like leaves.—Constit.: Linarin; linaraerin; linaresin; antirrhinic acid; linarosmin; tannic & citric acids.—Laxative; Diuretic.—Uses: Especially in hemorrhoids.

*Linden*.—see **Tilia**

# **Lindera**

(Fever Bush; Spice Bush; Wild Allspice).—Bark of *Lindera Benzoin*, Meissner. Lauraceae.—Habit.: Ontario to North Carolina & Kansas.—Constit.: Volat. oil.—Diaphor.; Stim.; Aromat.—Uses: To produce sweating in febrile inflam. & dropsical condit.—Dose: Fld. extr., 30–60 m (2–1 Ce.).

# **Liniment Camphor**

(Camphorated Oil).—20% solut. of camphor in cottonseed oil.—Rubefacient, Stimulant.—Uses: Intern., collapse.—Extern., rheum., neuralgia, &c.—Dose 5–10 m (0.3–0.6 Ce.) hypoderm. in collapse.

# **Linseed.—U. S. P.**

(Flaxseed; Linum).—Ripe seed of *Linum usitatissimum*, L. Linaceae.—Habit.: Cultivated everywhere.—Etymol.: Grk. “linon,” fr. Celtic “lin,” a thread; Lat. “linum,” fr. “linea,” a thread, referring to the use of the fibers for making fabrics. Lat. “usitatus,” useful. “Flaxseed,” fr. Anglo-Saxon “fleax,” “flechten,” to braid, plait (its fibers), + seed.—Constit.: Fixed oil; mucilage; proteids; amygdalin.—Purgat.; in ground form in cataplasms & enemas; Antidiabetic.—Uses: Techn., as source of linseed oil. The oil is used as a substitute for glycerin in frost bites, & mixed with lime-water for burns, &c. Warm oil is one of the best remedies for burns by fire or steam; heated with lead & manganese oxides it affords siccatives; mixed with cork powder it forms linoleum; paper & fabrics impregnated with the oil are rendered waterproof & tough.—Dose 4 dr. (15 Gm.) boiled with 1 quart (abt. 1 liter) water to make 1 pint (abt. 1/2 liter), the decoct. to be taken during 1 day, in diabetes.

*Lion's Tail*.—see **Leonurus**

# **Lipianin**

Substitute for cod-liver oil, & consisting of olive oil w. 6% oleic acid.—Oily liq.; pleas. odor; easily emulsified & absorbed.—Dose: Adults, 2–6 tablespoonfuls daily; children, 1–4 teaspoonfuls daily.

# **Lipp's Reagent.—For dextrin**

Satur., aqu. solut. lead acetate treated w. excess lead oxide, & then extracted w. W.—The filtrate affords a white ppt. on boiling w. dextrin.

# **Lippia**

(Fog-fruit).—Whole plant *Lippia dulcis* var. *Mexicana*, Trevir. Verbenaceae.—Habit.: Mexico.—Etymol.: Named for the French physieian, Auguste Lippi (1678–1703).—Constit.: Lippiol; volat. camphor; volat. oil.—Expector.—Uses: Coughs, colds & affections of respir. organs.—Doses: 30–60 grains (2–4 Gm.) in form of fld. extr.—Tinct., 60 m (4 Ce.).

*Liquidambar Orientalis*.—see **Styrax**

*Liquor Ammonia*.—see **Water Ammonia**

*Liquorice*.—see **Glycyrrhiza**

# **Liriodendron**

(Tulip-tree; Yellow Wood).—Bark of *Liriodendron tulipifera*, L. Magnoliaceae.—Habit.: Eastern U. S., west to Wisconsin; China.—Etymol.: Grk. “leirion,” lily, & “dendron,” tree, i.e., the tree bears lily-like blossoms. “Tulipifera,” tulip-bearing.—Constit.: Liriodendrin(?); tulipiferine; glucoside; bitter extractive; volat. oil; resin.—Alter.; Antiper.—Uses: Dyspep., rheumat., & ague.—Dose: Fld. extr., 30–60 m (2–4 Ce.).

*Liriosma Ovata*.—see **Muir Puama**

*Litharge*.—see **Lead Oxide, Yellow**

# **Lithium Merck** (1500

Metal.—Li.—Etymol.: Fr. Grk. “lithos,” stone, because first found in petalit (a silicate) by Arfvedson in 1818.—Silvery wh. metal, somewh. harder than sodium.—Lightest solid substance.—Sp. Gr. 0.5936 at 15° C.—Melt. 180° C.—Uses: All salts in lithiasis, arthritis, & chr. rheum.—Caut. Keep under benzin, naphtha or o. liquid free fr. oxygen.—Tests: Colors flame red; decomp. W.

# **Lithium Acetate Merck**

$LiC_2H_3O_2 + 2H_2O$ .—Colorl. cryst.—Sol. W.—Diuret.; Antipodagrie.—Uses: See Lithium.—Dose 8–25 grains (0.5–1.6 Gm.).

# **Lithium Agaricinate**

Wh. powd.; sl't saline taste.—Sol., eas. W.—Antihidrotic.—Uses: Night-sweats of phth.—Dose 1 1/2–3 grains (0.1–0.2 Gm.) at night.

# **Lithium Arsenate Merck**

$2Li_2AsO_4 + H_2O$ .—Wh. powd.—Sol. W.—Antilitic; Alter.—Uses: Lithiasis, malar. affect., skin dis., & anemia.—Dose 1/60–1/15 grain (0.001–

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

- 0.001 Gm.).—*Val.*, eructes, stomach, aphor-  
ism, alk., eyes, iron, iron, iron, iron, iron,  
barytes, iron, or iron, iron, iron, iron, iron,  
iron!
- Lithium Benzoate Merck** (2)  
 $\text{LiC}_6\text{H}_5\text{O}_2$ .—Wh., cryst. powd.—*Sol.* 3 W., 13 A.,  
at 25° C. (U. S. P.); 2.5 boil. W., 10 boil. A.  
—Antilith.; Diuretic; Antirheum.—*Dose* 5-20  
grains (0.3-1.3 Gm.).
- do. Merck.—Fr. natural acid (12)  
do. Merck.—Effervescent (6)  
Effervescent, mixt. lithium benzoate, citric acid, a  
bicarbonate, & sugar.—10% lithium benzoate.  
—Wh., gran. powd.—*Sol.* W.—Antilith.; Anod.  
—*Dose* 30-60 grains (2-4 Gm.).
- Lithium Benzosalicylate Merck** (4)  
White, cryst. powd.—*Sol.* W.—Properties of  
lithium benzoate & salicylic acid.
- Lithium Bichromate.**—see **Lithium Dichromate**
- Lithium Bitartrate Merck** (5)  
 $\text{Li}_2\text{C}_4\text{H}_4\text{O}_6 + \text{H}_2\text{O}$ .—Wh., cryst.—*Sol.* W.—*Uses*:  
Gouty & suppurative gingivitis.—*Dose* 5 grains  
(0.3 Gm.) 3 t. p. d.
- Lithium Borate Merck** (9)  
(Lithium Biborate).— $\text{Li}_2\text{B}_4\text{O}_7 + 5\text{H}_2\text{O}$ .—Wh.,  
cryst. powd.—*Sol.*, sl. W.
- Lithium Borocitrate Merck** (12)  
 $\text{Li}_2\text{H}_3\text{C}_6\text{H}_5\text{O}_2 + 2\text{H}_3\text{BO}_3 + 2\text{H}_2\text{O}$ .—Wh., powd.—*Sol.*  
W.—Antirheumatic.—*Dose* 1-5 grains (0.06-0.3  
Gm.) 3 t. p. d.
- Lithium Bromide Merck** (4)  
 $\text{LiBr}$ .—Wh., deliq., sl. bitter gran.—*Sol.* 0.6 W.,  
at 25° C., 0.3 boil. W.; v. sol. A.; also sol. E.  
(U. S. P.).—*Sed.*; Antilith.—*Uses*: Espec. in  
epilepsy & headache; also acute & chronic  
parenchymatous nephritis.—*Techn.* in photog-  
raphy.—*Dose* 10-30 grains (0.6-2 Gm.).—  
*Caut.* Keep well stoppered.
- Lithium Cacodylate Merck** (70)  
 $\text{LiCH}_3\text{AsO}_2 + \text{aq}$ .—Wh., powd.—*Sol.* W.
- Lithium Carbolate.**—see **Lithium Phenate**
- Lithium Carbonate Merck.—Pure** (3)  
(Normal Lithium Carbonate).— $\text{Li}_2\text{CO}_3$ .—Light,  
wh., alk. powd.—*Sol.* 75 W., at 25° C., 140  
boil. W.; sol. dil. acids (U. S. P.); insol. A.—  
Antilith.; Diuretic; Antirheum.—*Uses*: Lithiasis,  
rheum., gout, & arthritis; for gravel inject 15  
grains (1 Gm.) in aqu. solut.; also in manuf.  
mineral waters.—*Dose* 5-15 grains (0.3-1 Gm.)  
in soda-water or lemonade.
- do. Merck.—Highest Purity (3)  
do. Merck.—Effervescent (4)  
Mixt. lithium carbonate, sodium bicarbonate,  
citric acid, & sugar.—Wh., gran. powd.—Abt.  
10% lithium carbonate.—*Sol.* W., with effere-  
vesc.—*Dose* 30-60 grains (2-4 Gm.).
- Lithium Carmine.**—see **Orth's Lithium-Carmine**
- Lithium Chlorhydromethylarsenate**  
 $\text{CH}_3\text{AsHCl}_2 + \text{LiO}_2\text{O}$ .—Hydrom., cryst.—*Sol.*, cas.  
W., A.—*Uses*: A. at arsenical.—*Dose* 5-10 M  
(0.3-0.6 Gm.) 4 t. solut.
- Lithium Chloride Merck** (4)  
 $\text{LiCl}$ .—Colorl., deliq. cryt.; sharp, saline taste.  
—*Sol.* W., A., E., C.—*Uses*: As carbonate; also  
pyrotechn. & in manuf. mineral waters.
- Lithium Chromate Merck** (25)  
 $\text{Li}_2\text{CrO}_4 + 2\text{H}_2\text{O}$ .—Yellow, deliq., cryst. powd.—  
*Sol.*, cas. W.
- Lithium Citrate Merck.** Cryst. or powder (2)  
 $\text{CH}_3\text{O}(\text{H})\text{COOLi} + \text{H}_2\text{O}$ .—Transp., colorl.,  
cryst. or cryst. powd.; fl. alk. taste.—*Sol.*,  
abt. 2 W., at 25° C., 1.5 boil. W.; adm. insol. A.,  
& 12 U. S. P.).—Diuretic & Antiarthrit.—*Uses*:  
More agree. than o. lithium salts, & less irrit. to  
stomach.—*Dose* 5-20 grains (0.3-1.3 Gm.).
- do. Merck.—Effervescent (4)  
Mixt. lithium citrate, sodium bicarbonate,  
tartaric & citric acids.—Abt. 20% lithium  
citrate.—Wh., gran.—*Sol.* W., with effervesc.—  
*Uses*: Agreeable citrate drink.—*Dose* 30-60  
grains (2-4 Gm.).
- Lithium Dichromate Merck** (11)  
(Lithium Bichromate).— $\text{Li}_2\text{Cr}_2\text{O}_7$ .—Yellowish-  
red, cryst. powd.—*Sol.* W.—*Caut.* Keep well  
stoppered.
- Lithium Dithiosalicylate** (55)  
 $\text{Li}_2\text{C}_{11}\text{H}_8\text{S}_2\text{O}_6$ , or,  $\text{LiC}_7\text{H}_3\text{O}_3\text{S} : \text{SC}_7\text{H}_3\text{O}_3\text{Li}$ .—Gray  
powd.—*Sol.* W., A.—Antirheum.; Antilith.—  
*Uses*: Chronic rheum. & gout.—*Dose* 3-10 grains  
(0.2-0.6 Gm.).
- Lithium Fluoride Merck.—Pure** (22)  
 $\text{LiF}$ .—Wh., cryst. powd.—*Sol.*, abt. 400 W.
- Lithium Formate Merck** (20)  
 $\text{LiCHO}_2 + \text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.* W.—Anti-  
podagr.—*Dose* 4 fl. dr. (15 Cc.) of 1% aqu. solut.  
every 2-3 hours.
- Lithium Glycerinophosphate Merck** (14)  
 $\text{C}_3\text{H}_5\text{O}_5\text{PO}(\text{OLi})_2$ .—Wh., cryst. powd.—*Sol.* 3  
cold W.—*Uses*: Gout, accomp. by nervous  
debility.—*Dose* 8-15 grains (0.5-1 Gm.).
- Lithium Hippurate Merck** (30)  
 $\text{LiC}_9\text{H}_{11}\text{NO}_7$ , or,  $\text{NH}(\text{C}_7\text{H}_5\text{O})\text{CH}_2\text{COOLi}$ .—Wh.  
powd.—*Sol.*, sl. in hot W.—*Uses*: Uric-acid  
diathesis.—*Dose* 5-20 grains (0.3-1.3 Gm.).
- Lithium Hydrate.**—see **Lithium Hydroxide**
- Lithium Hydroxide Merck** (12)  
(Lithium Hydrate).— $\text{LiOH}$ .—Wh., caustic  
powd.; acrid, alkaline taste; absorbs carbon  
dioxide fr. air.—*Sol.* W.; sl. A.—*Caut.* Keep  
well stoppered.
- Lithium "Ichthyolsulphonate."**—see **Ichthyol  
Lithium**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



- Lithium Iodate Merck** (35)  
 $\text{LiIO}_3$ .—Wh. powd.—*Sol.* 1.25 W.—*Uses:* Uric-acid diathesis, renal colic, & gout.—*Dose*  $2\frac{1}{2}$ –3 grains (0.15–0.2 Gm.) 3 t. p. d.
- Lithium Iodide Merck** (6)  
 $\text{LiI}$ .—Wh., deliq., coarse powd.—*Sol.* W.—*Anti-rheum.*; *Antilith.*; *Alter.*—*Uses:* Chronic sciatic, gout, & artic. rheum.—*Techn.*, to some extent in photography.—*Dose* 1–5 grains (0.06–0.3 Gm.).
- Lithium Lactate Merck** (7)  
 $\text{LiC}_3\text{H}_5\text{O}_3$ .—Wh., cryst. powd.—*Sol.* W.—*Uses:* As of carbonate.
- Lithium Metaborate Merck** (15)  
 $\text{LiBO}_2$ .—Wh. powd.—*Sol.*, sl. W.
- Lithium Metavanadate.**—see **Lithium Vanadate**
- Lithium Nitrate Merck** (5)  
 $\text{LiNO}_3$ .—Deliq., transp. cryst.—*Sol.* W., A.—*Uses:* As of carbonate.—*Caut.* Keep in well-stoppered bot.
- Lithium Oxalate Merck** (16)  
 $\text{Li}_2\text{C}_2\text{O}_4$ .—Colorl. cryst.—*Sol.* 8 W.
- Lithium Phenate Merck** (8)  
 (Lithium Carbolate, Phenolate, or Phenylate; Phenol-lithium).—Wh. or reddish powd.—*Sol.* W.—*Antisep.*; *Antilith.*
- Lithium Phenolate.**—see **Lithium Phenate**
- Lithium Phenolsulphonate Merck** (12)  
 (Lithium Sulphocarbonate, or Sulphophenylate).— $\text{LiC}_6\text{H}_4\text{SO}_4 + \text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W.—*Uses:* *Intern.*, uric-acid diathesis.—*Extern.*, as inject. in gonorr.
- Lithium Phenylate.**—see **Lithium Phenate**
- Lithium Phosphate Merck** (5)  
 (Lithium Orthophosphate).— $2\text{Li}_3\text{PO}_4 + \text{H}_2\text{O}$ .—Wh., cryst. powd.—*Sol.*, in acids; v. sl. W.—*Dose* 10–30 grains (0.6–2 Gm.) per day.
- Lithium Platinichloride.**—see **Platinum & Lithium Chloride**
- Lithium Platinocyanide.**—see **Platinum & Lithium Cyanide**
- Lithium Quinate.**—see **Urosine**
- Lithium Rhodanide.**—see **Lithium Sulphocyanate**
- Lithium Salicylate Merck** (2)  
 $\text{LiC}_7\text{H}_5\text{O}_3$ .—Wh. to pink powd.; deliq. in moist air.—*Sol.* W., A.—*Decomp.* by heat.—*Uses:* Gout & articular rheumatism instead of sod. salicylate; less irritat. to stomach than salicylic acid.—*Dose* 10–30 grains (0.6–2 Gm.).—*Caut.* Keep in well-stoppered bot.
- do. Merck.**—Effervescent (5)  
 Lithium salicylate, sod. bicarbonate, tartaric acid, & sugar.—Wh., gran. powd.—*Abt.* 12% lithium salicylate.—*Sol.* W., with effervesc.—*Dose* 30–60 grains (2–4 Gm.).

- Lithium Silicofluoride Merck** (22)  
 $\text{Li}_2\text{SiF}_6 + 2\text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.* W.—*Caut.* Keep in well-stoppered bot.
- Lithium Sozoiodolate.**—see **Sozoiodole-Lithium**
- Lithium Succinate Merck** (25)  
 $\text{Li}_2\text{C}_4\text{H}_4\text{O}_4 + 3\text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.* W.
- Lithium Sulphate Merck** (6)  
 $\text{Li}_2\text{SO}_4 + \text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.* W., A.—*Cath.*; *Antiarthrit.*—*Uses:* Constip. w. torpid liver or gravel.—*Dose* 10–30 grains (0.6–2 Gm.).
- Lithium Sulphocarbonate.**—see **Sodium Phenol-sulphonate**
- Lithium Sulphocyanate Merck** (20)  
 (Lithium Sulphocyanide or Rhodanide).— $\text{LiSCN}$ .—Deliq., wh. cryst.—*Sol.* W.—*Caut.* Keep in well-stoppered bot.
- Lithium Sulphocyanide.**—see **Lithium Sulphocyanate**
- Lithium “Sulphoichthyolate.”**—see **Ichthyol Lithium**
- Lithium Sulphophenylate.**—see **Lithium Phenol-sulphonate**
- Lithium Tartrate Merck** (6)  
 $\text{Li}_2\text{C}_4\text{H}_4\text{O}_6 + \text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W.
- Lithium Urate Merck** (50)  
 $\text{LiC}_5\text{H}_3\text{N}_4\text{O}_3$ .—Wh. powd.—*Sol.*, sl. boil. W.—*Antiarthrit.*—*Dose* 8–30 grains (0.5–2 Gm.) p. d.
- Lithium Valerate Merck** (12)  
 (Lithium Valerianate).— $\text{LiC}_5\text{H}_9\text{O}_2$ .—Wh. cryst.; valerian odor.—*Sol.* W.—*Antispasm.*; *Antilith.*—*Uses:* Lithiasis, or rheum. w. hysteria, or nervousn.—*Dose* 5–15 grains (0.3–1 Gm.).
- Lithium Vanadate Merck** (75)  
 (Lithium Metavanadate).— $\text{LiVO}_3$ .—Yellowish powd.—*Sol.* W.—*Antiarthrit.*—*Dose*  $\frac{1}{15}$  grain (0.004 Gm.) daily, in water, repeated every second or third day.
- Lithium & Caffeine Sulphonate**  
 (Symphorol, L.).— $\text{LiC}_8\text{H}_9\text{N}_4\text{O}_2\text{SO}_3$ .—Wh., micro-cryst. powd.; bitter taste.—*Sol.* W.—*Diuretic.*—*Uses:* Kidney dis., fatty heart, & obesity; does not affect the blood pressure or depress the heart power. Solut. does not keep well; & as it has a bitter taste it is best administered in capsules.—*Dose* 15 grains (1 Gm.) 4–6 t. p. d. in capsules.
- Lithium & Potassium Tartrate Merck** (35)  
 $\text{LiKC}_4\text{H}_4\text{O}_6$ .—Wh., cryst. powd.—*Sol.* W.—*Antilith.*; *Lax.*; *Diur.*—*Uses:* Lithiasis & rheum., w. chronic constip.—*Dose* 30–60 grains (2–4 Gm.).
- Lithium & Sodium Salicylate Merck** (7)  
 Molec. prop. of the two salts.—Wh. powd.—*Sol.* W.—*Anti-rheum.*; *Antilithic.*; *Diur.*—*Uses:* Lithiasis, rheum., gout, &c.—*Dose* 10–30 grains (0.6–2 Gm.).

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Lithospermum**

(Gromwell; Semen Milii Solis; Stone Seed).—Seed of *Lithospermum officinale*, L. Boraginaceae.—*Habit*: Europe; Asia; native in U. S.—*Etymol.*: Grk. "lithos," stone, & "sperma," seed, referring to the hard, shining seed; or perhaps because of its resolving action on calculi.—*Duret.*; Emmen.—*Uses*: Calculous affections, dysent., & gonorr.

**Lithrea**

(Litré).—Lvs. of *Lithrea caustica* (L. venenosa, Miers). Anacardiaceae. *Habit*: Chili. *Etymol.*: Fr. "lithri," the Chilian name of the plant.—*Constit.*: A substance most probably resembling cardol; resin; volat. oil.—*Uses*: The alcoholic extract is epispastic & counterirrit.

**Litmus Merck. Purified**

(10

(Lacmus; Turnsole; Lacca Musica; Lacca Corulea).—Blue coloring matter fr. var. spec. Lichens (particularly *Varidaria*, *Lecanora*, & *Rocella*). Parmeliaceae.—*Habit.*: Shores of African & Atlantic Islands, & consists of various countries.—*Etymol.*: Lat. "lacca musica," fr. "muscus," moss, because obtained fr. a moss.—Small, light, friable, finely granular cakes or cubes; violet-blue color; charact. odor recalling that of indigo; pungent, somewhat saline taste; partly solub. in W., & dil. A.—*Constit.*: Azolitmin,  $C_7H_5NO_4$ ; erythrolitmin; spaniolitmin; lecanoric acid,  $C_{16}H_{11}O_7$ ; orcin,  $C_7H_5O_2$ ; erythrolein.—*Uses*: As indicator in volum. analysis (alkalies=blue; acids=red).

**do. Merck.—Cubes**

(1

Blue cubes or irreg. pieces.—*Sol.*, partly in W.—*Uses*: Color for foods; dye; also indicator in volumetric analysis.

**Litmus Merck.—Reagent**

(15

Specially purif. dye consist. chiefly of erythrolitmin & azolitmin, & obt. fr. var. spec. lichens. Litmus tincture (for indicator): diss. 1 Gm. in 800 Ce. hot W., & add by drops dil.  $H_2SO_4$  until liq. red; then boil 10 min. to expel  $CO_2$ . If blue color supervenes during boil. add more acid. Now add baryta water by drops till liq. violet; set aside to deposit, then filter; preserve in bots. not compl. filled, & simply covered w. a loose cap or stoppered w. a plug of cotton.—*Tests*: (Indicator) 0.2 Ce. tincture+100 Ce.  $H_2O$ ; boil in platin. dish till free fr.  $CO_2$ ; add 0.05 Ce. decinorm. HCl—violet color must change to red; on further add. 0.05 Ce. decinorm. KOH red color must change to pure blue.—*Uses*: Indicator, & prepar. nutrient media in bacteriology.  
*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Litmus Paper Merck.—Blue**

Wh. paper, charged w. blue litmus.—*Uses*: Exceedingly sensitive indicator & test for acids (red color).

**Litmus Paper Merck.—Neutral**

Unsize, wh. paper, charged w. neutral litmus.—*Uses*: Exceedingly sensitive indicator for acids & alkalies (alkalies=blue; acids=red).—Must be preserved in well-closed bottles, because prone to spoil.

**do. Merck.—Red**

Unsize, wh. paper, charged w. red litmus.—*Uses*: Indicator for alkalies (blue color).

*Litré.*—see **Lithrea**

**Liver Merck.—Dried, powder**

(20

Fr the fresh livers (deprived of blood) of cattle.—1 part=abt. 5 parts fresh organ.—*Uses*. Atrophic hepatic cirrhosis, diabetes, various hemorrhages, & hemeralopia.—*Dose*: Up to 5 dr. (20 Gm.) p. d.

**Liver of Antimony.—see Potassium & Antimony Sulphurated**

*Liver of Sulphur.*—see **Potassa Sulphurated**

*Liverwort.*—see **Hepatica**

**Lobelia.—U. S. P.**

(Indian or Wild Tobacco; Emetic Herb; Asthma Weed; Bladder Pod; Vomitwort).—Dried lvs. & tops (also seeds, though not official) of *Lobelia inflata*, L., Lobeliaceae, collected after a portion of the capsules have become inflated.—*Habit.*: Canada; U. S.—*Etymol.*: Named for Matthias de Lobel, a Flemish botanist & physician (1538–1616); Lat. "inflatus," inflated, referring to the inflated, egg-shaped pod.—*Constit.*: Lvs. & Tops: Lobeline; lobelaerin; inflatin; lobelic acid; volat. oil; resin; wax; gum.—*Seeds*: Fixed oil; lobeline.—*Lvs.*: Antispasm.; Emetic; Expector.; Nervine; Purgat.; Narcot.; Diuret.; Diaphor.—*Seeds*: Expector.; Emetic; Anti-asthmatic.—*Uses*: Both lvs. & seeds employed in spasm. asthma, whoop-cough, croup, pneum., & cold.—*Doses*: *Lvs.*: 1–5 grains (0.06–0.3 Gm.) as expector.; 10–20 grains (0.6–1.3 Gm.) emet.—*Alcoh. extr.*,  $\frac{1}{2}$ –2 grains (0.03–0.12 Gm.).—*Fld. extr.*, 2–10  $\mathfrak{m}$  (0.12–0.6 Ce.).—*Tinct.*, 8–15  $\mathfrak{m}$  (0.5–1 Ce.) expector.; 30–60  $\mathfrak{m}$  (2–4 Ce.) emetic.—*Seed*: *Fld. extr.*, 2–10  $\mathfrak{m}$  (0.12–0.6 Ce.).—*Antid.*, emetics; tannin; stimulants; strychnine (hypoderm.); opiates; pierotoxin; digitalis; atropine; artificial heat; brandy; friction; mustard baths.

**Lobeline Merck.—Pure, fr. Seeds**

(3000

Alkaloid fr. seeds of *Lobelia inflata*, L.— $C_{18}H_{23}NO_2$ .—Yellow syrup.—*Sol.* C., A., E.—*Sed.*; Antispasm.—*Uses*: Salts best for medical use (see the sulphate, fr. seeds).—*Antid.*, aid emesis by large draughts of warm water. Give tannin, brandy, morphine, &c. Use mustard & friction.—*Caut.* Poison! Not the eclectic "Lobelin."

**Lobeline Sulphate Merck.—Fr. Leaves**

(2000

Yellowish, coarse powd.; less hygrosc. than that fr. seed.—*Sol.* W., A.—*Uses & Dose*: As of the sulphate fr. seeds.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Lobeline Sulphate Merck.**—Fr. Seeds (2500

Very deliq., yellow, friable pieces.—*Sol.* W., A.  
—*Uses:* Asthma, bronch., dyspnea, chorea, whoop.-cough, gout, epilepsy, & spasm. neuroses.  
—*Dose:* Spasm. asthma, 1 grain (0.06 Gm.) per day, grad. increasing to 3–6 grains (0.2–0.36 Gm.) per day; for children,  $\frac{1}{6}$ – $\frac{3}{4}$  grain (0.01–0.05 Gm.) per day.—*Incomp.*, same as of alkaloids in general.—*Antid.*, stomach siphon, emetics & tannin. Stimulate later w. brandy, spirit of ammonia, &c. Give morphine.—*Caut.* Keep in well-stoppered bot.

**Löffler's Ferrous-Tannate Mordant**

Solut. 20 Gm. tannin in 80 Gm. W., with addition of 50 Cc. cold satur. aqu. solut. ferrous sulphate & 10 Gm. conc. alcoh. solut. fuchsine.—*Uses:* As mordant & stain for flagella.

**Löffler's Methylene-Blue Solution.**—For tubercle bacilli

Mixt. 30 vol. conc. alcoh. solut. methylene blue w. 100 vol. KOH solut. (1:10000).

**Logwood.**—see **Hæmatoxylin****Long Pepper.**—see **Piper Longum****Lophophorine Hydrochloride Merck** (25000

Salt of alkaloid from *Anhalonium Lewinii*, a Mexican Cactaceæ. —  $C_{13}H_{17}NO_3 \cdot HCl$ .—Wh. cryst. powd.—*Sol.* W.—Acts like other *Anhalonium* alkaloids, & like the latter, causes hallucinations.—See also *Anhalonine*.

**Loretin** (30

(Metaiodo-ortho-oxyquinolinesulphonic Acid). —  $C_9H_6IO_2SN$ , or,  $C_9H_6IN.OH.SO_3H$ .—Cryst., yellow powd.—*Sol.*, sl. W., A.; alm. insol. in E. & fixed oils, emulsifiable w. ether & oily fluids.—*Antiseptic.*—*Uses:* Inst. of iodof. in skin dis., surg. & veter. practice, &c., either pure, or w. talcum, starch, or magnesia; also in 5–10% oint., & as gauze, collodion, pencils, &c.

**Loretin-Bismuth**

(Bismuth Loretinate; Bismuth Ortho-oxyquinolinesulphonic acidmetaiodosulphonate).—Yellow, insol. powd.—*Astring.*; *Antisep.*—*Uses:* *Intern.*, in diarrhea of phthisis.—*Extern.*, sicative for wounds & weeping cutaneous eruptions, as dust.-powd. or oint. (1:15).—*Dose* 8 grains (0.5 Gm.) sev. t. p. d.

**Losophan** (36

(Triiodometacresol; Triiodocresol). —  $C_7H_5I_3O$ , or,  $C_7H_4I_3.OH.CH_3$ .—Colorl. need.; str. charact. odor.—*Abt.* 80% iodine.—*Sol.* E., C., B.; sl. A.; hot fatty oils; insol. W.—*Melt.* 121°C.—*Astring.*; *Antisep.*—*Uses:* *Extern.*, 1% hydro-alcoh. (3:1) solut., or 1–3% oint. in acute inflam., eczema, prurigo & o. parasitic skin dis. Checks secretion & hastens healing.

**Lovage.**—see **Levisticum****Löwenthal's Reagent.**—For glucose

Solut. 60 Gm. tartaric acid, 240 Gm. sod. carbonate, & 5 Gm. ferric chloride, in 500 Cc. W.

Reduced by glucose on warming, with formation of brown ppt.

**Löwe's Reagent.**—For glucose

Solut. 16 Gm. copper sulphate in 64 Cc. W., & adding 80 Cc. sodium-hydroxide solut. with 6–8 Gm. glycerin.—Is reduced by glucose on heating.—Also used for quantitative determ.

**Loxa Bark.**—see **Cinchona Loxa****Loxopterygium Lorentzii.**—see **Quebracho Colorado****Lugol's Reagent.**—For albumen

(1) Mixt. glacial acetic acid & W.—Precipitates albumen fr. its solutions.—(2) Aqu. solut. iodine in solut. potass. iodide, acidulated w. acetic acid (see Tanret's Reagent) is also used for the same purpose.

**Lunge's Reagent.**—For nitrous acid

Dissolve 0.1 Gm. alphanaphthylamine in 20 Cc. boil. water, filter through washed absorb. cotton, & add 150 Cc. dil. acetic acid (sp. gr. 1.04); to this liquid add a solut. 0.5 Gm. sulphanilic acid in 150 Cc. dil. acetic acid (sp. gr. 1.04).—Reagent affords a pink color with nitrous acid; a red color indicates much  $HNO_2$  or its salts.

**Lungmoss.**—see **Sticta****Lungwort.**—see **Pulmonaria****Lungwort Lichen.**—see **Sticta****Lupanin Merck** (500

Alkaloid fr. seeds *Lupinus albus*, *Perennis*, & *L. angustifolius*.— $C_{15}H_{23}N_2O$  (Hagen & Siebert).—Pale-yellow, honey-like syrup; unpleas. odor; intens. bitter taste; green fluoresc.—*Sol.* E., C., ligroin; sl. W.

**Lupetazin**

(Dimethylpiperazine; Dipropylenediamine).— $NH(C_2H_5.C_2H_5)_2NH$ .—Fr. dimethylpyrazine by reduct. w. alcoholic Na.—Colorl., oily liq.—*Boil.* 153–158°C.—*Uric Acid Solvent*.

**Lupinidine Sulphate Merck** (1500

(Lupinidine Bisulphate).—Salt of liq. alkaloid fr. seeds *Lupinus luteus*, & *L. niger*.— $C_{21}H_{40}N_2 \cdot H_2SO_4$ .—Minute, colorl. cryst.—*Sol.* W.; sl. A.—*Caut.* Poison!

**Lupinine Merck** (1500

Alkaloid fr. seeds *Lupinus luteus* & *L. niger*.— $C_{21}H_{40}N_2O_2$ .—Colorl. cryst.—*Sol.* W., A., E., & C.—*Melt.* 67–68°C.—*Boil.* 255–257°C.

**Lupulin.**—*U. S. P.* (8

Glandular trichomes separated fr. fruit of *Humulus Lupulus*, L. Moraceæ (Hops).—*Habit.*: Europe; Asia; North America; cultivated widely.—*Etymol.*: Fr. "lupulus," a contraction of "lupus salictarius" (Pliny), i. e., the wolf of the willows; or, diminutive of "lupus," i. e., a little wolf, because the plant strangles the shrubbery around which it grows.—*Constit.*:

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



Lupamaric acid, volat. oil, resin; choline; lupulic; wax; myricin; tannin; asparagin. Not less than 60% lupulin is sol in Et. (U. S. P.).—Aphrodisiac; Stom., Tonic, Anodyne.—*Uses*: Genital erections, catarrhs, chordee, &c.—*Dose*: 5-15 grains (0.3-1 Gm.).—Alcoh. extr., 8-25 grains (0.5-1.5 Gm.).—Fld. extr., 10-20  $\text{ml}$  (0.6-1.3 Ce.).

**Lutecobaltic Chloride.**—see **Cobalt (Luteo-) Chloride**

**Luteol Autenrieth-Merck.**—Reagent (500 Oxychlorodiphenylpropanone).— $\text{C}_{12}\text{H}_9\text{O}_2\text{Cl}_2$ .— $\text{N.C.}$  (C.H.)<sub>3</sub>. Yellowish, cryst. need.—*Sol.*: hot A. & L. insol W.—*Melt.* 216° C.—*Uses*: As indicator in 1:300 solut. for alkalis, w. which it gives an intense yellow color.

### Luteoline

(Sod. salt of sulphoxylencazodiphenylamine).—Diazo-compound from diphenylamine with metaxydinesulphonic acid.— $\text{C}_{20}\text{H}_{15}\text{N}_3\text{O}_4\text{SNa}$ , or,  $\text{SO}_3\text{Na}(\text{CH}_2)_2\text{C}_6\text{H}_4\text{N}(\text{N}(\text{C}_6\text{H}_5)_2)_2$ .—Orange-yellow powd.—*Sol.*: W. *Uses*: Dyeing wool orange fr. an acid bath.—*Caution*: This luteoline aniline dye should not be confounded w. luteolin,  $\text{C}_{15}\text{H}_{10}\text{O}_6 + 2\text{H}_2\text{O}$ , from weld (*Reseda luteola*).

**Lutidine Merck** (30

Dimethylpyridine).—Fr. bituminous shale, by distil.— $\text{C}_7\text{H}_9\text{N}$ , or,  $\text{C}_5\text{H}_7\text{N}/\text{CH}_3$  (1:2:6).—Clear, colorl. liq.—*Sol.*: W.—*Boil.* 154-156° C.

**Lycetol** (85

(Dimethylpiperazine Tartrate).— $\text{CH}_2(\text{CH}_3)\text{CH}_2\text{HN}(\text{CH}_2\text{CH}(\text{CH}_3)\text{NH}_2)_2(\text{COOH})_2$ .—Wh., odorl. powd.—*Sol.*: W.—*Melt.* 250° C.—*Anal.*: Diur., &c.—*Uses*: Gout, rheum., lithiasis, &c.—*Dose* 15-30 grains (1-2 Gm.) per day.

**Lycine Hydrochloride.**—see **Betaine Hydrochloride**

**Lycotonic Merck** (2500

Alkaloid fr. root *Aconitum Lycotonicum*, L.— $\text{C}_{20}\text{H}_{27}\text{NO}_5(\text{OH})_2$ .—Yellowish-wh. cryst.; intens. bitter taste.—*Sol.*: A., E., C., petroleum ether, carbon disulphide.—*Melt.*, abt. 100° C.—*Antid.*, emetics, stimulants, & tannin.

**Lycopin (Eclectic)** (25

Resin, extr. fr. *Lycopos virginicus*, L. (Bugleweed).—Brownish powd.; peculiar odor; unpleasant, sly bitter taste.—*Sol.*: A., E.—Astring.; Narcot.—*Uses*: Pulmonic & o. hemorrhages.—*Dose* 1-6 grains (0.06-0.36 Gm.).

**Lycopodium.**—U. S. P.

(Club-Moss [plant]; Lycopodium Seed [spores]; Vegetable Sulphur).—Spores of Lycopodium clavatum, L. Lycopodiaceae, & other spec. of L.—*Habit.*: N. America; Europe; Asia.—*Etymol.*: Grk. "lykos," wolf, & "pous," foot, fr. the resemblance of the shoots to a wolf's foot. "Clavatus," club-like, referring to the appearance of the fertile spikes.—*Constit.*: Spores contain fixed oil; cane sugar; lys. of plant contain

bitter principle, fat, & resin.—Popular remedy as an Emetic, Cathart., Diuret.—*Uses*: Chiefly in maintenance of urine, & other diseases of urinary organs; also as appl. in phle.

*Dose*: Tinct., 40  $\text{ml}$  (2.6 Ce.) 3 t. p. d.

### Lycopus

Bugleweed; Sweet Bugle, Water Bugle.—Whole plant *Lycopus virginicus*, L. Labiata.—*Habit.*: British America south to Florida & Missouri.—*Etymol.*: Grk. "lyko," wolf, & "pous," foot, referring to the fancied resemblance of the deeply cut leaves to a wolf's foot.—*Constit.*: Volat. oil; resin; tannin; glucoside.—*Hemost.*; Astring.; Tonic; Sedat.; Narc.—*Uses*: Diar. & dysent.; tonic in convalescence.—*Dose*: 5-60 grains (0.3-1 Gm.).—Extr., 5-10 grains (0.3-0.6 Gm.).—Fld. extr., 10-60  $\text{ml}$  (0.6-1 Ce.).

### Lycorin

Alkaloid fr. *Lycoris radiata*.— $\text{C}_{22}\text{H}_{25}\text{N}_2\text{O}_8$ .—Colorl. cryst.—*Sol.*: diffie. W., A., E.—*Melt.* 208° C.—*Diuret.*; Purg.

### Lygosine

(20

(Sodium Lygosinate).—Sodium salt of diorthocumarketone (or diortho-oxydibenzylacetone), a condensat. prod. of salicylic aldehyde & acetone.— $\text{CO}(\text{CH}_2\text{CH}(\text{C}_6\text{H}_4)_2)_2\text{O}(\text{NaO})_2 + 7\text{H}_2\text{O}$ .—Black cryst. w. green luster.—*Sol.*: W., afford. a red solut.—*Antisept.*; Bactericide.—*Uses*: Infectious ulcerative processes of skin & mucosa, gonorr., gonorrhoeic endometritis, &c.—*Appl.*, 2-10% solut.; in uterine gonorr. in 5% inject.

**Lygosine-Quinine.**—see **Quinine Lygosinate**

### Lysidine

(35

(Methylglyoxalidine; Ethylene-ethenyldiamine).— $\text{C}_4\text{H}_8\text{N}_2$ , or,  $\text{CH}_3\text{C}(\text{N}(\text{CH}_2\text{CH}_2\text{NH}))_2$ .—Pinkish, hygrosc. cryst.; mousy odor.—Marketed as 50% solut.—*Sol.*: W., A., E.—*Melt.* 105-106° C.—*Boil.* 198-200° C.—Uric-acid solvent.—*Uses*: Uric-acid diathesis. More active than piperazine. Does not cause digestive troubles or albuminuria.—*Dose* 15-75 grains (1-5 Gm.); or 30-150  $\text{ml}$  (2-10 Ce.) of the 50% solut. daily, in 1 pint (abt. 1/2 liter) cold, carbonated W.

### Lysidine Bitartrate

$\text{C}_4\text{H}_8\text{N}_2 \cdot \text{C}_4\text{H}_6\text{O}_6$ .—Sm., colorl. cryst.—*Sol.*: A W.; diff. A.—*Melt.* 193-194° C.—*Uses & Doses*: As of preceding.

### Lysol

Mixt. of alkali compounds of the higher phenols w. fat- & resin-soaps, obtained by boiling a mixture of heavy tar oils (boil. at 200° C.), fat, & resins, w. alkalies.—Brown, oily liq.; creosote odor.—Cont. abt. 50% of cresols.—*Sp. Gr.* 1.042.—*Sol.*: W., A., C., G., B. & benzin.—*Disinf.*; *Antisept.*—*Uses*: *Extern.*, 0.3-1% solut.; dress wounds & injuries, & for skin dis., diphth., &c.; 2-4% solut.: *disinf.* hands & surg. instr. *Recom.* as destroyer of fungi & insects.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**M****Macce**

Arilode of the seed of *Myristica fragrans*, Hout. Myristicaceæ.—*Habit.*: Molucca Islands; cultiv. in tropics, India, Philippines, S. America, Ceylon, Sumatra, Java, &c.—*Etymol.*: Fr. the Indian "makir," spice. "Myristica," fr. Grk. "myron," balsam, "myrizein," to anoint, i.e., an oint. used for its fragrant odor. Lat. "fragnans," fragrant, odorous.—*Constit.*: Volat. oil; fixed oil; resin; sugar; mucilage; proteids.—*Uses*: Stim.; Tonic; Carmin.; Spice; Flavoring.—*Dose* 5–20 grains (0.3–1.3 Gm.).

**Maclurin Merck**

(2500)

(Morintannic, or Moritannic, Acid).—Fr. wood *Morus tinctoria*, L. (*Maclura aurantiaca*, Nutt.) (Old Fustic).— $C_{13}H_{10}O_6 + H_2O$ .—Light-yellow, microcryst. powd.—*Sol.* A., E.; hot W.—*Melt.* 200° C.—*Uses*: Dye.

*Macrolin*.—see *Cimicifugin*

*Madder*.—see *Rubia*

**Magdala Red Merck**

(250)

(Naphthalene Red; Naphthalene Rose; Sudan Red; Naphthalene Scarlet; Rose Naphthylamine).—Mixture of naphthylnaphtorosinduline & naphthylidinaphthosafranine hydrochlorides.—Dark-brown powd.—*Sol.* A., sl. in boil. W.—*Uses*: Dyeing silk pink w. sl. fluorescence.

*Magenta*.—see *Fuchsine*

*Magistry of Bismuth*.—see *Bismuth Subnitrate*

*Magnesia*.—see *Magnesium Oxide*

**Magnesium Merck.—Bars 5 to 10 Mm. thick, & over**

(5)

Metal in bars.—Mg.—*Etymol.*: Derives its name fr. "Magnesia," the name of a town in Asia Minor.—Lustr., silvery-wh., mall, moderately hard; burns w. brill., wh. light.—*Melt.*, abt. 700° C.—*Uses*: Inst. of zinc in Marsh's apparatus & o. chem. anal.; also in powd. form for preparing various compounds, e.g., magnesium nitride, &c.; as substitute for zinc in galvanic batteries; in metallurgy for prepar. nickel & cobalt for rolling & milling; manuf. useful alloys, &c.

do. Merck.—Fine powder

(5)

*Uses*: Pyrotechny; flash-light.

do. Merck.—Coarse powder

(3)

*Uses*: Pyrotechny; flash-light.

do. Merck.—Ribbon 2 to 6 Mm. wide

(11)

*Uses*: Prod. intense light.

do. Merck.—Wire, turnings & sticks

**Magnesium Acetate Merck**

(4)

$Mg(C_2H_3O_2)_2 + 4H_2O$ .—Deliq., colorl. cryst.—*Sol.* W., A.—Cathartic.—*Uses*: As of the citrate.—*Dose* 5–60 grains (0.3–1 Gm.).—*Caut.* Keep well stoppered.

**Magnesium Alginate**

(Alginoid Magnesium).—Fr. magn. carbonate & sod. alginate.— $Mg_2(C_{76}H_{77}N_2O_{22})_2$ .—*Sol.* W.

**Magnesium Benzoate Merck.**—Fr. natural acid (6  $Mg(C_7H_5O_2)_2$ .—Wh. powd.—*Sol.* W.—Antilithic; Antisept.; Alter.—*Uses*: Lithemia, rheum., scrof., cirrhosis of liver, &c.—*Dose* 3–20 grains (0.2–1.3 Gm.) several t. p. d.

do. Merck.—Fr. Artificial acid

(5)

*Magnesium Bichromate*.—see *Magnesium Dichromate*

**Magnesium Biphosphate Merck**

(6)

(Acid Magnesium Phosphate; Magnesium Tetrahydrogen Phosphate; Monomagnesium Phosphate; Magnesium Phosphate, Monobasic).— $MgH_2(PO_4)_2$ .—Yellowish, cryst. powd.—Recom. as laxative.—*Dose* 10–30 grains (0.6–2 Gm.).

**Magnesium Bisulphate Merck**

(4)

(Magnesium Hydrogen Sulphate; Acid Magnesium Sulphate).— $MgH_2(SO_4)_2$ .—Wh. powd.—*Sol.* W.—Cath.—*Dose* 5–20 grains (0.3–1.3 Gm.).

**Magnesium Borate Merck**

(3)

("Antifungin").— $Mg(BO_2)_2 \cdot 2Mg(OH)_2 + 7H_2O$ .—Colorl. micro-cryst.—Antisept.—*Uses*: Preservative.—*Dose* 5–20 grains (0.3–1.3 Gm.).

**Magnesium Borocitrate Merck. — Powder or scales**

(3)

Wh. powd., or sm., wh., lustr. scales.—*Sol.* W.—Antilithic; Antisept.—*Uses*: Lithias., gout, rheum., &c.—*Dose* 15–30 grains (1–2 Gm.).

**Magnesium Bromate Merck**

(30)

$Mg(BrO_3)_2 + 6H_2O$ .—Colorl. cryst.—*Sol.* 1.4 W.

**Magnesium Bromide Merck.—Pure, cryst.**

(4)

$MgBr_2 + 6H_2O$ .—Colorl., v. deliq. cryst.; bitter taste.—*Sol.*, in 1 W.; sl. in A.—*Melt.* 165° C.—Nerve Sedative.—*Uses*: Insom., hyst., nymphomania, tetan., epilepsy, &c.—*Dose* 10–20 grains (0.6–1.3 Gm.) several t. p. d.—*Caut.* Keep dry, fr. air.

do.—Solution.—N. F.

Aqu. solut. cont. abt. 12.5%  $MgBr_2$  & extemporan. prepared.—*Dose* 60 ℥ (4 Cc.).

**Magnesium Butyrate Merck**

(10)

$Mg(C_4H_7O_2)_2$ .—Sm., deliq., colorl., cryst. scales.—*Sol.* W.

**Magnesium Cacodylate Merck**

(15)

$Mg[(CH_3)_2AsO_2]_2 + aq$ .—Wh. powd.—*Sol.* W.—*Uses*: Instead of alkali arsenates; indicated in cases where cacodylates generally (see sod. cacodyl.) are used, but employed only subcutaneously in 5% aqu. solut.—*Dose* 8–15 ℥ (0.5–1 Cc.) of 5% solut. subcut.

**Magnesium Carbonate Merck.—Light. — Cubes or powder**

(1)

(Light Carbonate of Magnesia).—Approximately  $MgCO_3 \cdot Mg(OH)_2 + 5H_2O$  (U. S. P.).—Perf'ly

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



wh., light pieces or fine, wh., bulky powd.; sl. earthy taste.—*Sol.* 3,000 W.; carbonic acid W.; acids.—*Antacid*; *Cath.*; *Antilithic*.—*Uses*: Constip., sour stomach, stone in bladder, &c. Excellent antidote to acid poison.—*Dose* 30-120 grains (2-8 Gm.).

**Magnesium Carbonate Merck.—Reagent (1)**

MgCO<sub>3</sub>.—Wh., light pieces, eas. reduc. to powd.; or wh., bulky powd. (Alm. insol. W.), but imparts to latter a sl. alk. react.—*Tests*: (*Impur. Sol. W.*) 5 Gm. powd. + 50 Cc. H<sub>2</sub>O, heat to boil; filter while hot; evap. 20 Cc. filtrate, wt. of res. not more than 0.0064 Gm.—(*Impur. Insol. in HCl*) 1 Gm. compl. sol. in 10 Cc. HCl (sp. gr. 1.124) + solut. colorl.—(*Cl*) 1 Gm. + 5 Cc. HNO<sub>3</sub> (sp. gr. 1.153) + 15 Cc. H<sub>2</sub>O + solut. AgNO<sub>3</sub> at most sl. opalesc. turb.—(*H<sub>2</sub>SO<sub>4</sub>*) 1 Gm. + 5 Cc. HCl (sp. gr. 1.124) + 15 Cc. H<sub>2</sub>O + solut. BaCl<sub>2</sub>—no turb.—(*Ba*) 1 Gm. + 5 Cc. HCl (sp. gr. 1.124) + 15 Cc. H<sub>2</sub>O + dil. H<sub>2</sub>SO<sub>4</sub>—no turb.—(*Ca*; *AD*) 1 Gm. + 30 Cc. dil. C<sub>2</sub>H<sub>3</sub>O<sub>2</sub> solut. BaCl<sub>2</sub>—no turb.; boil; add 20 Cc. NH<sub>4</sub>OH (sp. gr. 0.96) + solut. (NH<sub>4</sub>)<sub>2</sub>C<sub>2</sub>O<sub>4</sub>—no turb. within 5 min.—(*Heavy Met*) 1 Gm. + 20 Cc. dil. C<sub>2</sub>H<sub>3</sub>O<sub>2</sub> (sp. gr. 1.041) + 30 Cc. H<sub>2</sub>O—solut. clear; add aqu. H<sub>2</sub>S—no react.—(*Fe*) 1 Gm. + 5 Cc. HCl (sp. gr. 1.124) + 15 Cc. H<sub>2</sub>O + 0.5 Cc. solut. K<sub>4</sub>Fe(CN)<sub>6</sub>—no immed. blue color.—*Uses*: Prepar. o. Mg salts.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Magnesium Chlorate Merck (10)**

Mg(ClO<sub>3</sub>)<sub>2</sub> + 6H<sub>2</sub>O.—V. deliq., wh. powd.; bitter taste.—*Sol.* 0.8 W.—*Melt.* 40° C.—*Uses*: In epithelioma of lower lip as 20% oint.—*Caut.* Keep in well-stoppered bot.

**Magnesium Chloride Merck.—Highest Purity, cryst. or fused (1)**

MgCl<sub>2</sub> + 6H<sub>2</sub>O.—Colorl., deliq., bitter crystals; or deliq. mass (MgCl<sub>2</sub>).—*Sol.* W.; partly in A.—*Aper.*; *Cath.*—*Uses*: Appetizer, incr. flow of bile, & in constip.—*Dose*, of cryst., 4-8 dr. (15-30 Gm.).—*Caut.* Keep well-stoppered.

**do. Merck.—Pure, cryst. (1)**

Cont. some alkali chloride.—*Sol.* W.

**do. Merck.—Crude (1)**

*Uses*: Manuf. of "commercial" magnesia for fireproof stones, dressing cotton fabrics, manuf. disinfectants, fire extinguishers, fireproofing wood, & manuf. Sorel's magnesia cement.

**Magnesium Chloride Merck.—Reagent (2)**

MgCl<sub>2</sub> + 6H<sub>2</sub>O.—Wh., deliquesce. cryst.—*Sol.*, abt. 0.6 cold, & 0.3 hot W.; 5 A. (85% C).—*Tests*: (*Impur. Insol. in A.*) 2 Gm. + 10 Cc. 85% A.—compl. solub., & clear solut.—(*H<sub>2</sub>SO<sub>4</sub>*) 1 Gm. + 20 Cc. H<sub>2</sub>O + 1 Cc. HCl + solut. BaCl<sub>2</sub>—no turb.—(*H<sub>3</sub>PO<sub>4</sub>*; *H<sub>2</sub>AsO<sub>4</sub>*) 3 Gm. + 6 Gm. NH<sub>4</sub>Cl + 24 Cc. H<sub>2</sub>O + 12 Cc. NH<sub>4</sub>OH (sp. gr. 0.96)—no turb. or ppt. within 12 hrs.—(*NH<sub>4</sub> Salts*) heat 3 Gm. w.

10 Cc. solut. NaOH (sp. gr. 1.3)—no NH<sub>3</sub> vapors evol. (test w. moist litmus paper).—(*Ba*) 1 Gm. + 20 Cc. H<sub>2</sub>O + dil. H<sub>2</sub>SO<sub>4</sub>—no turb.—(*Heavy Met*; *Ca*) a. 1 Gm. + 20 Cc. H<sub>2</sub>O + aqu. H<sub>2</sub>S—no react.; b. 1 Gm. + 20 Cc. H<sub>2</sub>O + 1 Gm. NH<sub>4</sub>Cl + 5 Cc. NH<sub>4</sub>OH + (NH<sub>4</sub>)<sub>2</sub>C<sub>2</sub>O<sub>4</sub>—no react.; add (NH<sub>4</sub>)HS.—*Uses*: Prepar. magnesia mixt.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Magnesium Chromate Merck (7)**

MgCrO<sub>4</sub> + 7H<sub>2</sub>O.—Orange-yellow, cryst. powd.—*Sol.*, abt. 1.5 W.—*Melt.*, partially below 100° C

**Magnesium Citrate Merck.—Scales (5)**

(Normal Magnesium Citrate).—Mg<sub>3</sub>(C<sub>6</sub>H<sub>5</sub>O<sub>7</sub>)<sub>2</sub> + 14H<sub>2</sub>O.—Wh. scales; fbl. saline taste.—*Sol.* W.—*Cath.*; *Antilithic*.—*Dose* 30-120 grains (2-8 Gm.).

**do. Merck.—Soluble (3)**

**do. Merck.—Effervescent (3)**

(Granulated Citrate of Magnesia).—Mixt. magnesium citrate, sodium bicarbonate, citric acid, & sugar.—*Deliq.*, coarsely gran., wh. powd.; odorl.; mild. acid. pleas. taste.—*Sol.* 2 W.—*Cath.*; *Antilithic*.—*Uses*: Constip., sick headache, & gravel.—*Dose* 2-8 dr. (8-30 Gm.).—*Caut.* Keep dry.

**Magnesium Copaivate Merck (25)**

Yellowish powd.—*Sol.*, sl. A.—*Antisep.*; *Diur.*; *Lax.*; *Stim.*—*Uses*: Honor., leucorr., dysent., hemorrhoids, & chron. bronch. catarrh.—*Dose* 10-20 grains (0.6-1.3 Gm.) 3 t. p. d.

**Magnesium Dichromate Merck (8)**

(Magnesium Bichromate).—MgCr<sub>2</sub>O<sub>7</sub>.—*Deliq.*, brownish-red cryst.—*Sol.* W.—*Caut.* Keep fr. air.

**Magnesium Ergotate Merck (200)**

(Magnesium Sclerotinate).—Brown powd.—*Emmen.*; *Vasconstrict.*; *Motor-excitant.*—*Uses*: Amenorr., menor., uterine fibroids, epilepsy, &c.—*Dose* 2/3-1 grain (0.04-0.06 Gm.).

**Magnesium Ethylsulphate Merck (6)**

Mg(C<sub>2</sub>H<sub>5</sub>SO<sub>4</sub>)<sub>2</sub> + 4H<sub>2</sub>O.—*Deliq.*, colorl. cryst.—*Sol.* W., A.

**Magnesium Ferrolactate.—see Iron & Magnesium Lactate**

**Magnesium Fluoride Merck.—Pure (5)**

MgF<sub>2</sub>.—Wh. powd.—*Sol.*, v. sl. acids; insol. W.—Shows violet fluorescence by electric light.—*Uses*: Reccom. as antiseptic.—*Techn.*, in manuf. of glass, & of soda by Weldon process.

**Magnesium Formate Merck (6)**

Mg(CHO<sub>2</sub>)<sub>2</sub> + 2H<sub>2</sub>O.—Colorl. prisms.—*Sol.* W.

**Magnesium Glycerate Merck (135)**

Mg(C<sub>3</sub>H<sub>7</sub>O<sub>2</sub>)<sub>2</sub> + 3H<sub>2</sub>O.—Wh. to yellowish, cryst. powd.—*Sol.* W.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Magnesium Glycerinophosphate Merck** (8)  
 $\text{MgPO}_4\text{C}_3\text{H}_5(\text{OH})_2$ .—Colorl. powd.—*Sol.*, eas. W.  
*—Uses:* As of calcium glycerinophosphate.—  
*Dose* 3–10 grains (0.2–0.6 Gm.).

**Magnesium Gynocardate Merck** (30)  
 Brownish, cryst. mass.—*Sol.*, sl. h. A.—*Alterative.*—*Uses:* Leprosy, phthisis, chronic rheum., & serof. condit.—*Dose* 15–60 grains (1–4 Gm.).

*Magnesium Hydrogen Phosphate.*—see **Magnesium Phosphate**

*Magnesium Hydrogen Sulphate.*—see **Magnesium Bisulphate**

**Magnesium Hypophosphite Merck.—Pure** (3)  
 $\text{Mg}(\text{H}_2\text{PO}_3)_2 + 6\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W.—  
 Nerve Stim.—*Uses:* Phthisis, serof., & loss of nerve power.—*Dose* 3–10 grains (0.2–0.6 Gm.).  
**do. Merck** (2)

*Magnesium Hyposulphite.*—see **Magnesium Thiosulphate**

**Magnesium Iodide Merck** (8)  
 $\text{MgI}_2 + 8\text{H}_2\text{O}$ .—Deliq., cryst. powd.; decomposes in aqu. solut.—*Melt.* 45° C.—*Alter.*; Sialag.—  
*Uses:* Serof., syph. & chronic rheum.—*Dose* 2–10 grains (0.12–0.6 Gm.) several t. p. d.

**Magnesium Lactate Merck.—Pure, cryst.** (4)  
 $\text{Mg}(\text{C}_3\text{H}_5\text{O}_3)_2 + 3\text{H}_2\text{O}$ .—Wh. cryst.; v. bitter taste.—*Sol.* 30 W.—*Lax.*; Antilitic.—*Uses:* Constip. as mild laxative.—*Dose* 15–45 grains (1–3 Gm.) 4 t. p. d. in powd. or solut.

**Magnesium Lactophosphate Merck** (5)  
 (Magnesium Phospholactate).—Wh. powd.—  
 45% magnesium lactate.—*Sol.* W.—*Uses, &c.:* As of lactate.—*Dose* 3–15 grains (0.2–1 Gm.).

**Magnesium Malate Merck** (35)  
 $\text{MgC}_4\text{H}_4\text{O}_5$ .—Wh., cryst. powd.—*Sol.* W.—*Lax.*; Antilitic.—*Uses:* Mild cathartic.—*Dose* 30–120 grains (2–8 Gm.).

**Magnesium Molybdate Merck** (8)  
 $\text{MgMoO}_4$ .—Wh., cryst. powd.—*Sol.* W.

**Magnesium Nitrate Merck** (2)  
 $\text{Mg}(\text{NO}_3)_2 + \text{aq.}$ .—Wh., deliquesce. cryst.—*Sol.* abt. 1.5 W., A.

**Magnesium Nitrite**  
 $\text{Mg}(\text{NO}_2)_2 + 2\text{H}_2\text{O}$  (Hampel).—Deliq., cryst. mass.—*Sol.* W.

**Magnesium Oleate Merck** (4)  
 $\text{Mg}(\text{C}_{18}\text{H}_{33}\text{O}_2)_2$ .—Yellowish mass.—*Sol.*, partially in A. & E.

**Magnesium Oxalate Merck** (3)  
 $\text{MgC}_2\text{O}_4 + 2\text{H}_2\text{O}$ .—Wh. powd.—*Sol.* W.

**Magnesium Oxide Merck.—Light** (1)  
 (Light, or Calcined, Magnesia; Magnesia Usta).—  
 $\text{MgO}$ .—V. light, wh. powd.; sl. alkal. taste.—  
*Sol.*, dil. acids; carbonic-acid W.—*Antacid*;

*Cath.*; Antilitic.—*Uses:* Intern, sick headache, heartburn, gout, dyspep., sour stomach, constip., gravel, & as antid. to arsenic trioxide.—*Extern.*, ulc., & abraded surf.; dust. powd. for babies; & as base for tooth powders.—*Dose* 10–30–60 grains (0.6–2–4 Gm.). Smaller doses, antacid or antilitic; larger, laxative.

**Magnesium Oxide Merck.—Heavy** (1)  
 $\text{MgO}$ .—Dense, wh., v. fine powd.; does not form hydroxide as readily as the light oxide.— $\frac{2}{7}$  as voluminous as magnesium oxide, light.—*Uses* & *Doses:* As of preceding.

**Magnesium Oxide Merck.—Reagent** (2)  
 (Magnesia).— $\text{MgO}$ .—Wh., light, fine powd.—  
 alm. insol. W.—*Tests:* (*Impur. Sol. in W.*) 0.5 Gm.+20 Ce.  $\text{H}_2\text{O}$ ; heat to boil; cool; filter off 10 Ce.—filtrate at most sl. alkal. react.; evap.—  
 wt. of res. not more than 0.002 Gm.—(*Impur. Insol. in HCl*) 1 Gm.+10 Ce.  $\text{HCl}$  (sp. gr. 1.124) +10 Ce.  $\text{H}_2\text{O}$ —compl. solub., & clear solut.—  
 ( $\text{H}_2\text{SO}_4$ ) 0.5 Gm.+10 Ce. dil.  $\text{C}_2\text{H}_4\text{O}_2$  (sp. gr. 1.041)+solut.  $\text{Ba}(\text{NO}_3)_2$ —no immed. turb.—  
 ( $\text{Cl}$ ) 0.5 Gm.+10 Ce.  $\text{HNO}_3$  (sp. gr. 1.153)+10 Ce.  $\text{H}_2\text{O}$ +solut.  $\text{AgNO}_3$ —at most sl. opalesc. turb.—  
 ( $\text{H}_2\text{CO}_3$ ) 0.5 Gm.+10 Ce.  $\text{H}_2\text{O}$ +10 Ce. dil.  $\text{C}_2\text{H}_4\text{O}_2$ —should diss. without effervesc., & only a few individual gas bubbles may form.—  
 (*Ba*) 1 Gm.+10 Ce.  $\text{HCl}$  (sp. gr. 1.124)+10 Ce.  $\text{H}_2\text{O}$ +dil.  $\text{H}_2\text{SO}_4$ —no turb.—(*Ca*) 1 Gm.+20 Ce.  $\text{H}_2\text{O}$ ; filter; add to filtrate solut.  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ —  
 not more than sl. opalesc. within 5 min.—  
 (*Heavy Met.*) 1 Gm.+20 Ce. dil.  $\text{C}_2\text{H}_4\text{O}_2$  (sp. gr. 1.041)+aqu.  $\text{H}_2\text{S}$ —no react.—(*Fe*) 1 Gm.+10 Ce.  $\text{HCl}$  (sp. gr. 1.124)+10 Ce.  $\text{H}_2\text{O}$ +0.5 Ce. solut.  $\text{K}_4\text{Fe}(\text{CN})_6$ —no immed. blue color.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.—Reagent.—Free fr.  $\text{H}_2\text{SO}_4$**  (10)  
*Tests:* ( $\text{H}_2\text{SO}_4$ ) 3 Gm.+20 Ce.  $\text{HCl}$  (sp. gr. 1.124) +80 Ce.  $\text{H}_2\text{O}$ ; boil; add solut.  $\text{BaCl}_2$ —no ppt. ( $\text{BaSO}_4$ ) within 12 hrs.—Other tests as preceding.—*Uses:* Analysis iron & steel.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Magnesium Palmitate Merck** (25)  
 React.-prod., soluble magnesium salt w. potass., or sod., palmitate.—Wh., soapy mass.—*Sol.* A.—*Melt.* 120° C.

**Magnesium Peptonized Merck.—Soluble** (45)  
 (So-called "Magnesium Peptonate").—Yellowish powd.—*Sol.*, eas. W.—*Uses:* Dyspep.—*Dose* 1–2 grains (0.06–0.12 Gm.).

**Magnesium-Perhydrol Merck** (20)  
 Mixtures of (1): 15%  $\text{MgO}_2$  + 85%  $\text{MgO}$ ; & (2): 25%  $\text{MgO}_2$  + 75%  $\text{MgO}$ .—Disinfect.; Oxidizer.—  
*Uses:* Abnuv. gastric & intest. fermentative

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

process, form crystals, vomiting, harsh diarrhoea in phthisis. *Dose*: 1-2 grains (0.25-0.5 Gm.) in diarrhoea; 4 grains (0.15-0.25 Gm.) in keratinized gelat. caps. — Ordinarily  $\frac{1}{2}$ -1 t. spoonful may be given 3-4 t. p. d.

**Magnesium Permanganate Merck.**—Cryst. (40)  
 $Mg(MnO_4)_2 \cdot 6H_2O$ .—Crumbly, bluish-black cryst. *Sol.*, eas. W.—Powerful Antisepsis.—*Uses*: As of potass. permang.

**Magnesium Perhydrol.**—see Magnesium-Perhydrol

**Magnesium Phenolsulphonate Merck** (5)  
 (Magnesium Sulphocarbolate; Magnesium Sulphophenylate).— $MgC_6H_4(OH)SO_3 \cdot 7H_2O$ .—Colorl. cryst.—*Sol.* W.—Laxative, & Intest. Antiseptic.—*Dose*: 15-30 grains (1-2 Gm.).

**Magnesium Phosphate Merck.**—Pure (1)  
 (Dimagnesium Orthophosphate; Magnesium Hydrogen Phosphate; Magnesium Phosphate, Dibasic).— $MgHPO_4 \cdot aq$ .—Wh., cryst. powd.—*Sol.*, dil. acids; sl. W.

do. Merck. Highest Purity (2)

**Magnesium Phosphate, Dibasic.**—see Magnesium Phosphate

**Magnesium Phosphate, Monobasic.**—see Magnesium Biphosphate

**Magnesium Phosphite Merck** (3)  
 $MgHPO_3$ .—Wh., cryst. powd.—*Sol.* W.—*Uses*: As of other phosphites.—*Dose*: 5-10 grains (0.3-0.6 Gm.) several t. p. d.

**Magnesium Phospholactate.**—see Magnesium Lactophosphate

**Magnesium Platinocyanide.**—see Platinum & Magnesium Cyanide

**Magnesium Propionate Merck** (40)  
 $MgC_2H_5O_2$ .—Wh. powd.—*Sol.* W.

**Magnesium Pyrophosphate Merck** (4)  
 $Mg_2P_2O_7 \cdot aq$ .—Wh. powd.—*Sol.*, HCl, & HNO<sub>3</sub>.

**Magnesium Rhodanide.**—see Magnesium Sulphocyanate

**Magnesium Ricinate Merck** (4)  
 $Mg(C_{15}H_{31}O_2)_2$ .—Wh., cryst. powd.—*Sol.*, hot A.

**Magnesium Silicilate Merck.**—Highest Purity, Medicinal (4)

$Mg(C_2H_5O)_2 \cdot 4H_2O$ .—Colorl., cryst. powd.—*Sol.* W.—Antisep.; Antirheum.; Antidiarrh. &c.—*Uses*: Typhus & typhoid fevers as intest. antisep.; & in diarr., dysent., rheum., pleurisy, &c.—*Dose*: 8-30 grains (0.5-2 Gm.) several t. p. d.

**Magnesium Sclerotinate.**—see Magnesium Ergotate

**Magnesium Silicate Merck.**—Pure (3)  
 $3MgSiO_3 \cdot 5H_2O$ .—Fine, wh. powd.—*Insol.* W.—Absorbent; Astring.; Antisep.—*Uses*: Inst. of

bismuth silicate used in dia. Doc. not taken the stock.—*Dose*: 60-240 grains (4-15 Gm.).

**Magnesium Sulphide.**—see Silicon-magnesium

**Magnesium Siltrate.**—see Magnesium Sylvate

**Magnesium Sozoiodolate.**—see Sozoiodole-Magnesium

**Magnesium Succinate Merck** (20)  
 $MgC_4H_4O_6$ .—Wh. powd.—*Sol.* W.

**Magnesium Sulphate Merck.**—Highest Purity, Medicinal, cryst. (1)

(Epsom Salt; Bitter Salt).— $MgSO_4 \cdot 7H_2O$ .—Sm., colorl. prisms or need.; odorl.; bitter, saline taste.—*Sol.* 1:5 W. at 15° C.; (1:1 W. at 25° C., 0.3 boil. W.; insol. A., U. S. P.).—Cath.; Refrigerant.—*Uses*: Constip., lead colic, fevers, inflammation, &c., & in veterinary practice.—*Doses*: 240-480 grains (15-30 Gm.).—In veterinary practice the doses are as follows: Horses,  $\frac{1}{2}$ -1 lb. (approx. 250-500 Gm.); cattle, 1-2 lb. (approx. 500-1000 Gm.); sheep & goats, 3-6 oz. (approx. 50-100 Gm.); pigs, 6 $\frac{1}{2}$ -13 dr. (25-50 Gm.); dogs, 2 $\frac{1}{2}$ -6 $\frac{1}{2}$  dr. (10-25 Gm.); cats, 30-75 grains (2-5 Gm.); fowls, 15-30 grains (1-2 Gm.).

do. Merck.—Highest Purity, Medicinal, dried (1)

$MgSO_4$  + abt. 211 H<sub>2</sub>O.—Wh. powd.—*Sol.* W.—*Uses*: As preceding, but only in  $\frac{2}{3}$  the doses stated.—*Caution*. Keep dry, fr. air.

do. — White, cryst. & dried (1)

—*Uses*: Commercial grades of magnesium sulphate are used in weighting cottons, increasing the bleaching action of chlorinated lime, manuf. mother-of-pearl & frosted papers, fire-proofing fabrics; Meidlinger's battery; mineral waters.

**Magnesium Sulphate Merck.**—Reagent (1)

$MgSO_4 \cdot 7H_2O$ .—Clear, colorl., prism. cryst.; v. sl. effloresc. in air.—*Sol.* 1 cold, 0.3 boil., W.; insol. A.—*Tests*: (Cl) 1 Gm. + 20 Cc. H<sub>2</sub>O + 1 Cc. HNO<sub>3</sub> (sp. gr. 1.153) + solut. AgNO<sub>3</sub>—no turb.—(H<sub>3</sub>PO<sub>4</sub>; H<sub>3</sub>AsO<sub>4</sub>; Heavy Met.) as under MerCl<sub>2</sub>.—(Fe) 1 Gm. + 20 Cc. H<sub>2</sub>O + 1 Cc. HCl + solut. KSCN—no react.—(LiS) 1 Gm. powd. + 3 Cc. solut. SnCl<sub>2</sub>—no darker color within 1 hr.—*Uses*: Prepar. magnesia mixt.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Magnesium Sulphate, Acid.**—see Magnesium Bisulphate

**Magnesium Sulphite Merck** (1)

$MgSO_3 \cdot 6H_2O$ .—Wh., cryst. powd.; gradually changes to sulphate on expos.—*Sol.* 20 W.—Antisep.; Cath.—*Uses*: Inst. of sodium sulphite in infectious diseases; has less disagr. taste.—*Dose*: 10-60 grains (0.6-4 Gm.); 150-300 grains (10-20 Gm.) may be given per day.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Magnesium Sulphocarbonate.* — see **Magnesium Phenolsulphonate**

**Magnesium Sulphocyanate Merck** (15)  
(Magnesium Sulphocyanide, or Rhodanide).— $\text{Mg}(\text{SCN})_2 + 4\text{H}_2\text{O}$ .—Clear, colorl., deliq. cryst.—*Sol.* W.—*Caut.* Keep dry & well stoppered.

*Magnesium Sulphophenylate.*—see **Magnesium Phenolsulphonate**

**Magnesium Sylvate Merck**  
(Magnesium Silvate or Sylvinate).— $\text{Mg}(\text{C}_{20}\text{H}_{20}\text{O}_2)_2$ .—Wh. powd.—*Sol.* W.

**Magnesium Tartrate** (6)  
 $\text{MgC}_4\text{H}_4\text{O}_6$ .—Wh. powd.—*Sol.* 122 W.—Cathartic.—*Uses:* Spleen dis. w. neural. symp.—*Dose* 8–15 grains (0.5–1 Gm.).

**Magnesium Thiosulphate Merck.**—Pure (3)  
(Magnesium Hyposulphite).— $\text{MgS}_2\text{O}_3 + 6\text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.* W.—Antisep.; Cath.—*Dose* 10–30 grains (0.6–2 Gm.).

**Magnesium Tungstate Merck.**—Cryst. (35)  
(Magnesium Wolframate).—Wh. cryst.—*Alm.* insol. W.—Fluoresces in Roentgen rays, hence used like calcium tungstate in radiography.

**Magnesium Urate Merck** (12)  
 $\text{MgC}_5\text{H}_2\text{N}_4\text{O}_3$ .—Wh., amorph. powd.—*Insol.* W., A.

**Magnesium Valerate Merck** (8)  
(Magnesium Valerianate).— $\text{Mg}(\text{C}_5\text{H}_9\text{O}_2)_2$ .—Wh. powd.; charact. valerian odor.—*Sol.* W.; hot A.—*Uses:* As other valerates.—*Dose* 3–10 grains (0.2–0.6 Gm.) several t. p. d. in pills.

*Magnesium Wolframate.*—see **Magnesium Tungstate**

**Magnesium & Ammonium Arsenate Merck** (5)  
Fr. solut. arsenic acid, magnes. sulphate & amm. chloride, in excess of ammonia.— $\text{MgNH}_4\text{AsO}_4 + 6\text{H}_2\text{O}$ .—Wh. powd.—*Sol.* sl. in W., & in solut. amm. chloride.

**Magnesium & Ammonium Chloride Merck.**—Reagent.—For **Magnesia Mixture for Phosphoric Acid Determination** (2)

$\text{MgCl}_2 \cdot (\text{NH}_4)\text{Cl} + 6\text{H}_2\text{O}$ .—Rhomb. cryst., or wh. cryst. powd.—*Sol.*, eas. W.—*Tests:* ( $\text{H}_2\text{SO}_4$ ; *Heavy Mct.*; Ca; Ba) as under  $\text{MgCl}_2$ .—( $\text{H}_3\text{PO}_4$ ;  $\text{H}_2\text{AsO}_4$ ) 5 Gm. + 10 Cc.  $\text{H}_2\text{O} + 5$  Cc.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96)—no turb. or ppt. within 12 hrs.—*Uses:* Prepar. magnesia mixt. for determ. phosphoric & arsenic acids.

*Note.*—For complete tests see “Chemical Reagents: Their Purity & Tests,” published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Magnesium & Ammonium Phosphate Merck.**—Highest Purity (3)  
(Magnesium & Ammonium Orthophosphate).— $\text{Mg}(\text{NH}_4)\text{PO}_4 + 6\text{H}_2\text{O}$ .—Wh. powd.—*Sol.*, dil. acids.

**Magnesium & Ammonium Sulphate Merck** (1)  
 $\text{Mg}(\text{NH}_4)_2(\text{SO}_4)_2$ .—Wh. powd.—*Sol.* W.

**Magnesium & Potassium Phosphate Merck** (6)  
 $\text{MgKPO}_4 + 6\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W. with decomp.

**Magnesium & Potassium & Ammonium Phosphate Merck.**—Pure, cryst. (4)  
 $\text{MgKNH}_4\text{H}_2(\text{PO}_4)_2 + 3\text{H}_2\text{O}$ .—White cryst.—*Sol.*, sl. W.

**Magnolia Acuminata**

(Cucumber Tree).—Flowers of *Magnolia acuminata*, L. Magnoliaceae.—*Habit.*: U. S. (New York to Alabama, west to Arkansas).—*Etymol.*: Named for Prof. Pierre Magnol, a French botanist (d. 1715). “*Acuminata*” refers to the acuminate leaves.—*Antiper.*; Tonic; Diaphor.—*Uses:* Malaria, rheumat. dyssep., &c.—*Dose:* Fld. extr., 30–60  $\text{m}$  (2–4 Cc.).

*Magnolia Seeds.*—see **Nigella Damascena**

*Maidenhair.*—see **Adiantum**

*Maidenhair, White.*—see **Ruta-Muraria**

*Malabar Nul.*—see **Adhatoda**

*Malachite, Artificial.*—see **Copper Carbonate, Green**

*Malachite, Artificial, Blue.*—see **Copper Carbonate, Blue**

**Malachite Green Merck.**—Cryst. (8)  
(Benzaldehyde, New, Victoria, Fast, Diamond B., Solid O., Benzoyl, or Benzal, Green).—Fr. hydrochl. of tetramethyldiparamidotriphenylcarbinol w. zinc chloride.—Yellow cryst. w. bluish-green reflect., or brown powd.—*Sol.*, ethyl- & methyl-A.—*Uses:* Techn., for directly dyeing silk & wool, jute & leather, bluish-green; cotton, after mordanting; also as stain.

do. **Merck.**—Powder (7)

*Malachite Green G.*—see **Brilliant Green**

**Malakin** (30)  
(Salicylparaphenetidin).—50% salicylaldehyde.— $\text{OC}_2\text{H}_5\text{C}_6\text{H}_4\text{N} : \text{HC}_6\text{H}_4\text{HO}$ .—Fine, bright-yellow need.—*Sol.*, hot A., solut. alkal. carbonates; sl. cold A.; insol. W.—*Melt.* 92° C.—*Antipyret.*; Analg.; Teniafuge; slower than antipyrine or acetanilide.—*Uses:* Fever; rheum., neural., tapeworm, &c.—*Doses:* 15 grains (1 Gm.) several t. p. d.; antipyretic dose in phthisis, 8 grains (0.5 Gm.) every 2 hrs.

**Malarin**

(Acetophenonephenetidin Citrate).— $\text{C}_9\text{H}_5\text{O}_6\text{C}_6\text{H}_4\text{N} : \text{C}(\text{CH}_3)_2\text{C}_6\text{H}_5$ .—Colorl., cryst. powd.—*Sol.*, hot W., & in sod. carbonate solut.; sl. cold W.—*Antipyret.*; Antineural.—*Uses:* Headache, neuralgia, &c.—*Dose* 8–15 grains (0.5–1 Gm.) 1–3 t. p. d.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Male Fern.**—see **Aspidium**

**Malleine Foth-Merck.** Dry

Mixture of toxic, specifically active products of metabolic processes occurring during growth of glandular bacillus.—Yellowish wh., voluminous powd.—*Sol.* W.—*Uses.* Veter., diagnosis of glanders.—*Inf.* (Horse).  $2\frac{1}{2}$ – $5\frac{1}{6}$  grain (0.04–0.05 Gm.) in 75 ml (5 Ce.) steril. cold dist. W. If temperature rises over 2° C. the presence of glanders may be assumed.

**Mallow**

(Common Mallow; High Mallow; Cheese-flower).—Flowers & lvs. of *Malva sylvestris*, L. Malvaceae.—*Habit.*: Europe; Asia; naturalized in U. S.—*Etymol.*: Fr. Grk. "malakos," soft, mild, i.e., the plant has emollient properties.—*Constit.*: Pectin; tannin; coloring matter.—Demulc.; Emoll.

**Malt Sugar.**—see **Maltose**

**Maltose Merck.**—Pure, cryst. (25

(Malt Sugar).—Carbohydrate fr. starch paste, by malt diastase.— $C_{12}H_{22}O_{11} + H_2O$ .—Wh., cryst. powd.—*Sol.* W., A.—*Nutr.*—*Uses.*: Sweetener.

**Mammary Gland Merck.**—Dried, powder (25

Fr. the fresh udders of cows.—1 part = 8.75 parts fresh gland.—*Uses.*: Uterine fibroma, menorrhagia, & metrorrhagia.—*Dose* 5–10 grains (0.3–0.6 Gm.) 3 t. p. d.

**Manaca**

(Manacán; Vegetable Mercury; Mercurio-vegetal; Camganiba; Geratacêia; Brunfelsia).—Root of *Franciscia uniflora*, Pohl (Brunfelsia Hopeana, Benth.). Solanaceae.—*Habit.*: Brazil.—*Etymol.*: "Manaca" is the South American name of the plant, which was named for Emperor Franz II. of Austria (1768–1835), during whose reign Pohl traveled through Brazil. Otto Brumfels, for whom the species was also named, was a botanist of Metz (16th century).—*Constit.*: Manacine (alkaloid); aesculetin; fluorescent substance probably identical w. gelsemiae acid.—Antisyphil.; Antiserofular; Antirheumat.; Cathart.; Diuret.; Alterat.—*Uses.*: Rheum., gout, & syphilis; sometimes in asthma & pneumonia.—*Doses.*: 10–60 grains (0.6–4 Gm.).—*Fld.* extr., 5–20 ml (0.3–1.3 Ce.).

**Manchester Brown.**—see **Bismarck Brown**

**Manchester Yellow.**—see **Martius Yellow**

**Mancona Bark.**—see **Sassy Bark**

**Mandarin.**—see **Tropæoline 000 No. 2**

**Mandarin G R.**—see **Orange T**

**Mandelin's Reagent.**—For alkaloids

Solut. 1 Gm. ammonium vanadate in 200 Gm. conc. sulphuric acid.—Affords brown, red, or green color reactions w. alkaloids.

**Mandrake.**—see **Podophyllum**

**Manganese Merck** (5

Metal—Mn.—*Etymol.*: Fr. Grk. "manganizo," to purify, because w. Mn manufacturers removed from glass the color imparted by ferric oxide; or perhaps fr. Grk. "manganon," magical substance.—V. hard, brittle, steel-gray lumps; lustr., whitish-gray, metal. fracture.—*Sol.*, dil. acids. *Uses.*: Technically important because of its alloys, e.g., ferromangan, ferrosilicon-mangan, copper mangan.

**Manganese Acetate Merck.**—Pure (4

(Manganous Acetate).— $Mn(C_2H_3O_2)_2 + H_2O$ .—Transp., pale red cryst.—*Sol.* W.

do. Merck.—Technical (2

*Uses.*: Techn., in dyeing, & manuf. of bistre.

**Manganese Albuminate Merck** (20

Brown scales.—*Sol.* W.—Tonic & Alter.—*Uses.*: Chlorosis & anemia, alone or w. some iron prep.

**Manganese Arsenate Merck.**—Pure (5

(Manganous Arsenate).— $MnHASO_4$ .—Reddish-wh. powd.—*Sol.*, sl. in W.—Alter.; Tonic.—*Uses.*: Anemia & chlorosis.—*Dose*  $\frac{1}{30}$ – $\frac{1}{6}$  grain (0.002–0.01 Gm.) several t. p. d.—*Antid.*, as for arsenic trioxide.

**Manganese Benzoate Merck** (8

$Mn(C_7H_5O_2)_2$ .—Wh., sealy cryst.—*Sol.* W.; sl. A.

**Manganese Binoride.**—see **Manganese Dioxide**

**Manganese Borate Merck** (1

(Manganous Borate).— $MnB_4O_7$  (50% to 80%).—Wh., loose powd.—*Uses.*: Techn., in drying varnishes & oils (as siccativ. w. linseed oil 1:500), & in leather industries.

**Manganese Bromide Merck** (5

(Manganous Bromide).— $MnBr_2$ .—Rose-red cryst.—*Sol.* W., with decomp.—*Dose* 1–8 grains (0.06–0.5 Gm.) sev. t. p. d.—*Caut.* Keep fr. air.

**Manganese Butyrate Merck** (30

$Mn(C_4H_7O_2)_2$ .—Rose-red powd.—*Sol.* W.

**Manganese Cacodylate Merck** (20

(Manganous Cacodylate).— $Mn[(CH_3)_2AsO_2]_2$ .—Reddish-wh., cryst. powd.—*Sol.* W.

**Manganese Carbonate Merck.**—Highest Purity (2

(Manganous Carbonate).— $MnCO_3$ .—Fine, amorphous, light-brown powd.—Tonic.—*Uses.*: Anemia & chlorosis.—*Dose* 5–15 grains (0.3–1 Gm.) 2–3 t. p. d.

do. Merck.—Pure (1

**Manganese Chloride Merck.**—Highest Purity, cryst. (1

(Manganous Chloride).— $MnCl_2 + 4H_2O$ .—Deliq., rose-red crystals.—*Sol.* eas. W.; A.—*Uses.*: Intern., chlorosis, chronic cutaneous eruptions, & hemorrhages.—Extern., in solut. as mouth-wash & gargles in syphilitic ulcers in mouth.—*Techn.*, in dyeing (manganese bistre), manuf. of

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



chlorine, disinfecting, purifying glass, & regenerating manganese dioxide. — *Caut.* Keep well stoppered.

**Manganese Chloride Merck.—Highest Purity, dried** (2)

$\text{MnCl}_2$ .

do. Merck.—Pure cryst. (1)

**Manganese Chloride Merck.—Reagent** (2)

(Manganous Chloride).— $\text{MnCl}_2 + 4\text{H}_2\text{O}$ .—Reddish, hygrosc. cryst.—*Sol.*, abt. 1 W.; *A.*—*Tests:* ( $\text{H}_2\text{SO}_4$ ) 1 Gm. + 10 Ce.  $\text{H}_2\text{O}$  + 1 Ce.  $\text{HCl}$  (sp. gr. 1.124) + solut.  $\text{BaCl}_2$ —no turb.—(*Cl*) 1 Gm. + 40 Ce.  $\text{H}_2\text{O}$  + 5 Ce. dil.  $\text{H}_2\text{SO}_4$  + solut. zinc iodide-starch—no immed. blue color.—(*Ca*) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 2 Ce. solut.  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ —no immed. turb.—(*Fe*; *o. Foreign Met.*; *Salts of Mg & Alkalies*) *a*: 1 Gm. + 15 Ce.  $\text{H}_2\text{O}$  + 1 Ce.  $\text{HCl}$  (sp. gr. 1.124) + 3 Ce.  $\text{Cl}$ -water; boil; cool; add solut.  $\text{KSCN}$ —no red color; add aqu.  $\text{H}_2\text{S}$ —no react.; *b*: 3 Gm. + 50 Ce.  $\text{H}_2\text{O}$  + solut. ammon. carbonate (5 Gm. to 50 Ce.  $\text{H}_2\text{O}$ ); when Mn pptd., filter; evap. filtrate & ignite—wt. of res. not more than 0.001 Gm.—(*Zn*) 1 Gm. + 1 Gm.  $\text{Na}_2\text{C}_2\text{H}_3\text{O}_2$  + 10 Ce.  $\text{H}_2\text{O}$  + few drops  $\text{C}_2\text{H}_3\text{O}_2$  + aqu.  $\text{H}_2\text{S}$ —no wh. ppt. solub. in  $\text{HCl}$ .—*Uses:* Determ. oxygen & borie acid.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Manganese Chromate Merck** (6)

(Basic Manganous Chromate).— $\text{MnCrO}_4 \cdot \text{MnO} + 2\text{H}_2\text{O}$ .—Brown powd.—*Sol.*, partially in W.

**Manganese Citrate Merck** (5)

$\text{Mn}(\text{C}_6\text{H}_5\text{O}_7)_2$ .—Wh. powd.—*Sol.* W.—Tonic; Astring.—*Uses:* In chlorosis, & instead of iron citrate in anemic condit.—*Dose* 1–3 grains (0.06–0.2 Gm.).

**Manganese Dioxide Merck.—Artificial, Pure** (2)

(Manganese Peroxide or Bin oxide; Black Oxide of Manganese).— $\text{MnO}_2$ . Cont. abt. 90%  $\text{MnO}_2$ .—Heavy, black powd.—*Sol.*, hot mineral acids.—Tonic; Alter.; Emmen.—*Uses:* Flatul., amenor., calculi, erysip., scrofula, septicemia, syph., chlorosis, scurvy, & var. skin dis. Also techn. in electrotechn., glass-making, rubber goods, &c.—*Dose*  $1\frac{1}{2}$ –10 grains (0.1–0.6 Gm.).—*Appl.*, in 12–15% oint. in porrigo, exanthema, scabies, &c.

do. — Natural (1)

(Pyrolusite).—Steel-gray lumps; metal. luster; cont. abt. 90%  $\text{MnO}_2$ .—*Uses:* Techn., in electrotechn. as manganese dioxide paper for dry galvanic piles & Leclanché elements; also for making amethyst glass, & for painting on porcelain, faience, & majolica.

**Manganese Dioxide Merck.—Reagent** (1)

(Manganese Per- or Super-oxide; Pyrolusite).— $\text{MnO}_2$ .—Grayish-black to steel-blue, brittle, or

fibrous pieces. Abt. 90%  $\text{MnO}_2$ .—*Uses:* Prepar.  $\text{Cl}$  &  $\text{O}$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Manganese Dithionate.—see Manganese Hypo-sulphate**

**Manganese Ferrocyanide Merck** (8)

$\text{Mn}_2\text{Fe}(\text{CN})_6 + 7\text{H}_2\text{O}$ .—Greenish-white powd.—*Sol.*, solut. potass. cyanide; insol. W.

**Manganese Fluoride Merck** (10)

(Manganous Fluoride).— $\text{MnF}_2$ .—Reddish powd.—*Sol.* W.

**Manganese Glycerate Merck** (125)

$\text{Mn}(\text{C}_3\text{H}_5\text{O}_2)_2 + 3\text{H}_2\text{O}$ .—Whitish powd.—*Sol.* W.

**Manganese Glycerinophosphate Merck** (8)

$\text{Mn}(\text{C}_3\text{H}_7\text{O}_3\text{PO}_2)_2$ .—Yellowish-wh. powd.—*Sol.* W.—*Uses:* Deficient nerve nutrition, neurasthenia, anemia, chlorosis, Addison's dis., phosphaturia, convalesc. fr. influenza, beriberi, &c.—*Dose* 2–5 grains (0.12–0.3 Gm.) 3 t. p. d.

**Manganese Green.—see Barium Manganate**

**Manganese Hydrate.—see Manganese Hydroxide**

**Manganese Hydroxide Merck** (1)

(Manganic Hydroxide or Hydrate).— $\text{Mn}_2\text{O}_3 \cdot (\text{OH})_2$ .—Dark brown powd.—*Sol.*, hot nitric acid.—*Uses:* Techn., under the name "manganese bistre" as pigment for fabrics, & for painting on porcelain.

**Manganese Hypophosphite Merck.—Pure** (2)

$\text{Mn}(\text{H}_2\text{PO}_2)_2 + \text{H}_2\text{O}$ .—Rose-red cryst.—*Sol.* 6.6 W. at 25° C., 6 boil. W.; alm. insol. A. (U. S. P.).—*Uses:* Anemia, chlorosis, & scrofula.—*Dose* 1–10 grains (0.06–0.6 Gm.) several t. p. d.

**Manganese Hyposulphate** (10)

(Manganous Dithionate).— $\text{MnS}_2\text{O}_6$ .—Wh. need.—*Sol.* W.

**Manganese Iodide Merck** (8)

(Manganous Iodide).— $\text{MnI}_2$ .—Yellowish-brown, deliq., cryst. masses.—*Sol.* W., with decomp.—Alter.; Tonic.; Antisep.—*Uses:* Anemia, chlorosis, scrof., syph., & splenic enlargement.—*Dose* 1–3 grains (0.06–0.2 Gm.).

**Manganese Lactate Merck** (5)

$\text{Mn}(\text{C}_3\text{H}_5\text{O}_2)_2 + 3\text{H}_2\text{O}$ .—Pale-red crystals.—*Sol.* W.; *A.*—Tonic.—*Uses:* Chlorosis, & all weak & anemic condit.—*Dose* 1–5 grains (0.06–0.3 Gm.).

**Manganese Lactophosphate Merck** (9)

(Manganous Phospholactate).—Manganous lactate w. 36% manganous phosphate.—Reddish-wh. powd.—*Sol.* W.—Tonic.—*Uses:* Convalesc. fr. fevers, in anemia, chlorosis, tuberculosis & scrof.—*Dose* 1–5 grains (0.06–0.3 Gm.) sev. t. p. d.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



- Manganese Linoleate Merck.**—Fused (1)  
Dark-brown, plaster-like mass.—*Sol.* C., & hot linseed oil.—*Uses:* Techn., in varnishes (1 part dissolved in 100 linseed oil at 120–150° C., then added to balance of oil).
- Manganese Monosulphide.**—see **Manganese Sulphide**
- Manganese Monoxide.**—see **Manganese Oxide, Manganous**
- Manganese Nitrate Merck.**—Pure (4)  
(Manganous Nitrate).— $\text{Mn}(\text{NO}_3)_2 + \text{aq.}$ —Rose-red, monoc. deliq. cryst.—*Sol.* W.
- Manganese Oleate Merck.**—Pure (6)  
 $\text{Mn}(\text{C}_2\text{H}_5\text{O}_2)_2$ .—Brown, gran. mass.—*Sol.* E., oleic acid; sl. in A.—*Uses:* Inunction in chlorosis & anemia.—*Techn.*, in varnishes.
- Manganese Oxalate Merck.**—Pure (2)  
(Manganous Oxalate).— $\text{MnC}_2\text{O}_4 + 2\text{H}_2\text{O}$ .—Wh., cryst. powd.—*Sol.*, conc. acids.—*Uses:* Techn., as drier, & in manuf. metallic manganese.
- do. Merck.—Commercial (1)  
*Uses:* Techn., as drier.
- Manganese Oxide Merck.**—Manganic (2)  
(Manganese Sesquioxide).— $\text{Mn}_2\text{O}_3$ .—Black powd.—*Sol.*, conc. acids.—*Uses:* Techn.
- Manganese Oxide Merck.**—Manganomanganic (4)  
 $\text{Mn}_3\text{O}_4$ .—Brownish-black powd.—*Sol.*, hydrochloric acid.—*Uses:* Chiefly in chemical analysis.
- Manganese Oxide Merck.**—Manganous (10)  
(Manganous Monoxide or Protoxide).— $\text{MnO}$ .—Grayish-green powd.—*Sol.*, acids.—*Tonic.*—*Uses:* Chlorosis & anemia.—*Techn.*, as green pigment.—*Dose* 2–10 grains (0.12–0.6 Gm.).
- “Manganese Peptonate.”—see **Manganese Peptonized**
- Manganese Peptonized Merck** (5)  
(So-called “Manganese Peptonate”).—Brown powd.; contains 4% manganic oxide.—*Sol.* W.—*Tonic, Nutritive.*—*Uses:* Anemia & chlorosis.—*Dose* 10–30 grains (0.6–2 Gm.).
- Manganese Peroxide.**—see **Manganese Dioxide**
- Manganese Phenolsulphonate Merck** (5)  
(Manganous Sulphocarbonate; Manganous Sulphophenylate).— $\text{Mn}(\text{C}_6\text{H}_4\text{OH}.\text{SO}_3)_2 + 7\text{H}_2\text{O}$ .—Reddish cryst.—*Sol.* W., A.—*Tonic; Antisep.*—*Uses:* Intest. derang. w. anemia or chlorosis.—*Dose* 3–8 grains (0.2–0.5 Gm.).
- Manganese Phosphate Merck.**—Pure (3)  
(Normal Manganous Orthophosphate).— $\text{Mn}_3(\text{PO}_4)_2 + 7\text{H}_2\text{O}$ .—Reddish-wh. powd.—*Sol.*, eas. in mineral acids; sl. A.; insol. W.—*Uses:* Chlorosis; also techn. as reagent.—*Dose* 1–5 grains (0.06–0.3 Gm.).
- Manganese Phospholactate.**—see **Manganese Lactophosphate**
- Manganese Propionate Merck.**—Pure (70)  
(Manganous Propionate).— $\text{Mn}(\text{C}_2\text{H}_3\text{O}_2)_2$ .—Reddish-white powd.—*Sol.*, sl. in W.
- Manganese Protoxide.**—see **Manganese Oxide, Manganous**
- Manganese Pyrophosphate Merck** (125)  
(Manganous Pyrophosphate).— $\text{Mn}_2\text{P}_2\text{O}_7 + 3\text{H}_2\text{O}$  (?).—Amorph., wh. powd.—*Sol.*, in excess of solut. of sodium- or potassium pyrophosphate.
- Manganese Resinate Merck.**—Fused (1)  
Dark, brownish-black, resin-like masses.—*Sol.* C., & hot linseed oil.—*Uses:* Techn., in varnishes.
- do. Merck.—Precipitated (1)  
Flesh-colored, loose powd.—*Sol.* C., & hot linseed oil.—*Uses:* As preceding (2 parts dissolved in 100 linseed oil at 120–150° C., then added to balance of oil).
- Manganese Salicylate Merck** (40)  
(Manganous Salicylate).— $\text{Mn}(\text{C}_7\text{H}_5\text{O}_2)_2$ .—Wh., cryst. powd.—*Sol.* W., A.—*Tonic; Alter.; Antirheum.*—*Uses:* Anemia, chlorosis, rheum., & gout.—*Dose* 2–10 grains (0.12–0.6 Gm.).
- Manganese Sesquioxide.**—see **Manganese Oxide, Manganic**
- Manganese Silicate Merck** (10)  
(Manganous Silicate).— $\text{MnSiO}_3$ .—Red cryst., or yellowish-red powd.—*Insol.* W.—*Uses:* Techn., as color, for glass.
- Manganese Succinate Merck** (25)  
(Manganous Succinate).— $\text{MnC}_4\text{H}_4\text{O}_4$ .—Whitish, cryst. powd.—*Sol.* W.
- Manganese Sulphate Merck.**—Pure, cryst. (1)  
(Manganous Sulphate).— $\text{MnSO}_4 + 4\text{H}_2\text{O}$ .—Transp., pale rose-red, ellorcs. prisms; bitterish, astring. taste.—*Sol.* 0.8 W., at 15° C.; (0.7 W. at 25° C., 0.53 boil. W.; insol. A., U. S. P.).—*Tonic; Cholag.; Cath.; Styp.*—*Uses:* Intern., anemia, chlorosis, arthritis, & jaund.—*Extern., hemorrhage.*—*Dose* 5–10 grains (0.3–0.6 Gm.).—*Appl.*, in 1:5–10 oint. in stiff joints (from gout, rheumat., &c.).
- do. Merck.—Pure, dried (2)  
(Anhydrous Manganous Sulphate).— $\text{MnSO}_4$ .—Reddish-wh. powd.—*Uses:* Techn., in dyeing, & for glazing porcelain.
- do. Merck.—Crude (1)
- Manganese Sulphate Merck.**—Reagent (2)  
(Manganous Sulphate).— $\text{MnSO}_4 + \text{H}_2\text{O}$ .—Pale-red, monoclin. cryst.—*Sol.* 0.8 W.; insol. A.—*Tests:* (Cl) 1 Gm. + 20 Cc.  $\text{H}_2\text{O}$  + 1 Cc.  $\text{HNO}_3$  (sp. gr. 1.153) + solut.  $\text{AgNO}_3$ —at most sl. opalesc. turb.—(Fe; Zn; o. Foreign Met.; Salts of Mg & Alkalies) as under  $\text{MnCl}_2$ .—(Ca) 1 Gm. + 20 Cc.  $\text{H}_2\text{O}$ —solut. perf. clear; add 2 Cc. solut.  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ —no immed. turb.—*Uses:* Determ. oxygen

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



& boric acid; assistant in permanganate titrations in presence of HCl.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

#### Manganese Sulphide Merck. —Pure (5

(Manganous Sulphide; Manganese Monosulphide).— $MnS$ .—Greenish-gray to brown powd.—*Sol.*, acids; *insol.* W.—*Uses*: Techn., as green pigment (feuille morte).

#### Manganese Sulphite Merck (3

(Manganous Sulphite).— $MnSO_3$ .—Gray, cryst. powd.—*Sol.*, in aqueous solut.  $SO_2$ .—Tonic; Cholag.; Antisep.—*Uses*: Anemia, chlorosis, & diar.—*Dose* 5–15 grains (0.5–1 Gm.).

Manganese Sulphocarbolate. } —see Manganese  
Manganese Sulphophenylate. } Phenolsulphonate

#### Manganese Tannate Merck (10

(Manganous Tannate).—Brown powd.—*Sol.*, acids; *insol.* W.

#### Manganese Tartrate Merck (9

(Manganous Tartrate).— $MnC_4H_4O_6$ .—Wh. powd.—*Sol.*, v. sl. W.

#### Manganese Valerate Merck (40

(Manganous Valerate).— $Mn(C_5H_9O_2)_2 + 2H_2O$ .—Brown powd.; alm. insoluble.

#### Manganese & Ammonium Sulphate (1

(Manganous Ammonium Alum).— $Mn(NH_4)_2(SO_4)_2$ .—Pale, rose-red cryst.—*Sol.* W.

#### Manganese & Iron Lactate.—see Iron & Manganese Lactate

#### Manganic & Manganous Salts.—see under Manganese

#### Manganomanganic Oxide.—see Manganese Oxide, Manganomanganic

#### Mangin's Reagent.—For cellulose

Aqu. solut. iodine, potass. iodide, & tin chloride.—*Uses*: Microscopic detect. cellulose (blue color).

#### Mangini's Reagent.—For alkaloids

Solut. potass. iodide & bismuth iodide in conc. HCl.—Affords reddish-brown ppt. w. alkaloids.

#### Mangosteen.—see Garcinia

#### Manihot Utilissima.—see Tapioca

#### Man-mu.—see Eumenol

#### Manna.—U. S. P.

Concrete, saccharine exudation of Fraxinus Ornus, L. Oleaceae.—*Habit.*: Mediterranean Basin; Asia Minor to Spain.—*Etymol.*: Fr. Grk. "manna," Hebrew "man," Arabic "manu," gift of heaven, i.e., food divinely supplied.—*Constit.*: Mannit,  $C_6H_{12}(OH)_6$ ; glucose; mucilage; fraxin,  $C_{16}H_{18}O_{10}$ .—*Laxat.*; Demule.; Expector.; Nutrient; Cholag.—*Dose* 1–8 dr. (4–30 Gm.).

#### Manna Sugar.—see Mannit

#### Mannit Merck (5

(Manna Sugar).—Fr. manna, the sacchar. secret. fr. Fraxinus Ornus.— $C_6H_{14}O_6$ , or,  $C_6H_{12}(OH)_6$ .—Wh. prisms.—*Sol.* W.; sl. A.—*Melt.* 165–166° C.—*Laxative.*—*Uses*: Gentle lax. in constip. & recommended in diabetes.—*Dose* 6–8 dr. (20–30 Gm.); children, 1–3 dr. (4–12 Gm.) in W.

#### do. Merck.—Powder (8

Wh. powd.—*Sol.* W.

#### do. Merck.—Recrystallized fr. Alcohol (12

#### Mann's Paper.—see Citro-Molybdcic Acid Paper

#### Manzanilla, Great-berried.—see Arctostaphylos Glauca

#### Maranta.—see Starch, Arrowroot

#### Maretin (28

(Metatolylhydrazine Carbamate).— $C_6H_4.CH_2.NH.NH.CONH_2$ .—Colorl., lustr., tastel. cryst.—*Sol.* 100 A.; 1000 W.; diffie. C., & acetone; alm. *insol.* E.—*Melt.* 183–184° C.—Antipyr.—*Uses*: Phthisis, typhoid, influenza, intermitt. fever, &c.—*Dose* 3–8 grains (0.2–0.5 Gm.).

#### Margaron

By distil. beef-suet w. lime.—( $C_{16}H_{33}O_2$ ).—Wh. mass; odorl.; tastel.—*Uses*: Pharmaceutical.

#### Magnac's Salt.—see Potassium Stannosulphate

#### Marigold.—see Calendula

#### Marine Blue Merck (6

Sodium salt of Triphenylpararosanilinedi(& tri-)sulphonic Acids.—Dark-blue powd., or lumps w. bronze luster.—*Sol.*, eas. W.—*Uses*: Dyeing silk.

#### Marjoram

(Sweet Marjoram; Knotted Marjoram).—Whole herb Origanum Majorana, L. Labiate.—*Habit.*: Southern Europe; Western Asia; widely cultivated.—*Etymol.*: Fr. "marjamie," by which name the Arabs designated the plant.—*Constit.*: Volat. oil; tannin.—Stomachic; Condiment; Sternutatory; used also in cookery.

#### Marjoram, Common.—see Origanum

#### Marmé's Reagent.—For alkaloids

(Solution Cadmium & Potassium Iodides).—Dissolve 10 Gm. cadmium iodide in a hot solut. 20 Gm. potass. iodide in 60 Cc. W., & then add an eq. volume cold, satur. solut. potass. iodide.—Develops wh. to yellow ppt. in acidulated solutions of alkaloids.

#### Marrow, Red, Bone.—Dried, powder

Fr. bones of cattle.—1 part = 5 parts fresh, red bone marrow.—*Uses*: Anemia, chlorosis, pernicious anemia, rachitis, purpura hemorrhagica, psychoses, & infantile anemia pseudoleucemia.—*Dose* 3 grains (0.2 Gm.) several t. p. d.

#### Marrubium.—U. S. P.

(Horehound; Hoarhound).—Dried lvs. & tops of Marrubium vulgare, L. Labiate.—*Habit.*:

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



Europe; Central Asia; natur. in U. S.—*Etymol.*: Fr. Hebrew "mar," bitter, & "rob," much, or great. "Vulgaris," common, ordinary, i. e., growing wild. "Horehound," fr. Anglo-Saxon "hor," gray, & "hune," hound, i. e., the stem & branches are covered with a white felt.—*Constit.*: Volat. oil; marrubiin; tannin; resin; fat; wax; sugar.—*Nervine*; Vermif.; Bitter Stomachic; Resolvent; Stim.; Tonic; Deobstruent; large doses are Diuret., Diaphor., & Laxat.—*Uses*: Colds, chron. lung affections, amenor., jaundice, cardialgia, dyspep., &c.—*Doses*: 30-60 grains (2-4 Gm.).—*Aqu. extr.*, 3-10 grains (0.2-0.6 Gm.).—*Fld. extr.*, 30-60 M (2-4 Ce.).

*Marsh Parsley.*—see **Selinum**

*Marshmallow.*—see **Althæa**

## Martius Yellow Merck

(6)

(Naphthol Yellow; Manchester Yellow; Naphthalene Yellow; Jaune d'Or).—*Ann.*, sod., or calc. salt dinitroalphanaphthol.—By act. of HNO<sub>3</sub> upon alphanaphthylamine, or alphadiazonaphthalene, or upon the disulphonic acid of alphanaphthol.—NH<sub>4</sub>C<sub>10</sub>H<sub>5</sub>N<sub>2</sub>O<sub>5</sub>, or, NaC<sub>10</sub>H<sub>5</sub>N<sub>2</sub>O<sub>5</sub> + H<sub>2</sub>O, or, CaC<sub>10</sub>H<sub>5</sub>N<sub>2</sub>O<sub>5</sub>—*Sm.*, glist., orange-yellow plates; or yellowish-red cryst.—*Sol.* W., & A.—*Uses*: Dyeing wool golden-yellow in acid bath; coloring lacquers, &c.

*Mass, Blue.*—see **Mercury, Mass of**

*Mass Copaiba.*—see **Copaiba Mass**

## Mass Ferrous Carbonate

(1)

(Vallet's Mass).—*Abt.* 40% FeCO<sub>3</sub>.—*Sol.*, acids.—*Tonic.*—*Uses*: Anemia & chlorosis.—*Dose* 3-6 grains (0.2-0.36 Gm.).

*Mass, Mercurial.*—see **Mercury, Mass of**

*Mass, Vallet's.*—see **Mass Ferrous Carbonate**

*Massicot.*—see **Lead Oxide, Yellow**

*Masterwort.*—see **Imperatoria**

## Mastic.—U. S. P.

(Balsam Tree; Lentisk; Pistachia Galls; Mastiche; Mastix).—Concrete resinous exudation fr. Pistacia Lentiscus, L. Anacardiaceæ.—*Habit.*: Mediterranean Islands, especially Chios (Scio).—*Etymol.*: Grk. "mastichacin," to chew, to masticate, i. e., the gum is used in the East as a chewing-gum. "Pistacia," fr. Grk. "pistake," fr. Persian "pistah," altered fr. its Arabic name "foustaq," or "fistaq," the pistachio tree (Dioscorides). Lat. "lentiscus," fr. "lens, lentis," a lenticle, i. e., having elliptical cavities in which the resin is secreted.—*Constit.*: Volat. oil; bitter principle; alpha-resin (masticic acid), C<sub>20</sub>H<sub>22</sub>O<sub>2</sub>; beta-resin (masticin), C<sub>20</sub>H<sub>31</sub>O<sub>2</sub>.—*Mild Stim.*; Diuret.; Protective (in solut.).—*Uses*: Techn., in tooth cements, plasters, lacquers, chewing-gums, & incense.

## Maté

(Paraguay Tea; Yerba Maté; St. Bartholomew's Tea; Jesuits' Tea).—*Lvs.* of Ilex paraguayensis, St. Hilaire. Aquifoliaceæ. Ilicaceæ.—*Habit.*:

South America (Brazil; Argentine Republic).—*Etymol.*: "Maté," according to Bonpland, is the name by which is designated a warm infusion of the leaves of Ilex paraguayensis.—*Constit.*: Volat. oil; caffeine (0.2-1.8%); tannin; a stearopten; mateviridic acid; vanillin.—*Diur.*; Sudorif.; Nerve Tonic; Exhilarant; Lax.; large doses Drastic Purgat.—*Uses*: Headache, chron. constip., & nervous affections; also in domestic use like coffee & tea.—*Dose*: Fld. extr., 30-60 M (2-4 Ce.).

## Matico.—U. S. P.

(Matico Leaves).—*Lvs.* of Piper angustifolium, Ruiz et Pavon. Piperaceæ.—*Habit.*: Peru; Bolivia; Brazil; Mexico; Cuba.—*Etymol.*: "Matico" is the Spanish name of the shrub—it is perhaps derived from the Peruvian "maté," which designates a warm infusion.—*Constit.*: Volat. oil; maticin (bitter principle); artanthic acid; tannin; mucilage; resin.—*Hemostat.*; Antiblemnor.; Bitter Tonic; Stim.; Aromat.; Astring.—*Uses*: Intern., in diseases of muc. membranes, cystic catarrh, hemorrhoids, dysent., gonorr., diar., hemoptysis, menor.—*Extern.*, epistaxis & other hemorrhages, ulcers, &c.—*Doses*: 30-120 grains (2-8 Gm.).—*Alcoh. extr.*, 5-10 grains (0.3-0.6 Gm.).—*Fld. extr.*, 30-60 M (2-4 Ce.).—*Tinct.*, 30-120 M (2-8 Ce.).

## Matricaria.—U. S. P.

(German Chamomiles; Wild Chamomiles).—Dried flower-heads of Matricaria Chamomilla, L. Compositæ.—*Habit.*: Europe; Western Asia; cultiv. in U. S.—*Etymol.*: Fr. Lat. "matrix," "matrice," womb, i. e., it was formerly used because of its supposed action on the womb. For "chamomilla" see "Anthemis."—*Constit.*: Volat. oil; anthemiac acid; anthemidine; extractive; tannin.—*Diaphor.*; Antispasmodic; Emoll.; Tonic; Emmenag.; Carmin.; Anthelm.—*Uses*: Emetic in large doses. In small doses to expel worms, or to "sweet out" colds. In very small doses, appetizer.—*Extern.*, appl. to indol. ulcers & sores.—*Doses*: 15-60 grains (1-4 Gm.), usually in infus.—*Alcoh. extr.*, 2-8 grains (0.12-0.5 Gm.).—*Fld. extr.*, 15-60 M (1-4 Ce.).

*May Apple.*—see **Podophyllum**

## Mayer's Alcoholic Acid Carmine

4 Gm. carmine, 15 Ce. W., 30 drops HCl, & 95 Ce. 85% A., w. ammonia added until persistent ppt.; then filter.—*Uses*: Staining nuclei.

## Mayer's Hemacalcium

(Mayer's Hematoxylin-Alum-Calcium).—*Solut.* 1 Gm. hematein (or ammon. salt, prepar. by evapor. a solut. 1 Gm. hematoxylin & 1 Ce. ammonia in 20 Ce. W.) & 1 Gm. alumin. chloride in 600 Ce. 70% alcohol, with addit. of 10 Ce. acetic acid & 50 Gm. calc. chloride.—*Uses*: Staining nuclei.

## Mayer's Picrocarmine

*Solut.* 8 Gm. carmine in 100 Ce. ammonia, w. satur. aqu. solut. picric acid added until format. of a ppt.—*Uses*: As of Ranvier's Picrocarmine.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Mayer's Picro-Hydrochloric Acid**

100 Cc. satur. aqu. solut. picroic acid w. 3 Cc. conc. hydrochloric acid.—*Uses*: Fixing tissue elements (excepting those containing calcium carbonate).

**Mayer's Picro-Nitric Acid**

Satur. solut. picroic acid in 5 Cc. nitric acid (Sp. Gr. 1.185) & 100 Cc. W.—*Uses*: Fixing all tissue elements (except those containing  $\text{CaCO}_3$ ).

**Mayer's Reagent.—For alkaloids**

(Solution Mercury & Potassium Iodide).—Solut. 13.55 Gm. mercuric chloride & 50 Gm. potass. iodide in 1000 Cc. W. Gives a wh. ppt. w. most alkaloids in slightly acidulated solutions; may also be used for quantitative estim. alkaloids. (See Winckler's [Tanret's] Reagent).

**Maytenus**

(Palta; Colquiyuyu; Chaplan; Capia Gangona; Sombra de Toro Carape).—Lvs. of Maytenus Vitis Idiæi, Molina, Celastraceæ.—*Habit.*: Argentine Republic.—*Etymol.*: Fr. "mayten," the Chilean name of the plant. "Vitis," fr. the Celtic "gwid," shrub, & "viere," to bind, i.e., the plant climbs about others. "Idæi," fr. Lat. "ideus," fr. Mount Ida, in Crete.—*Uses*: Ringing in the ears, cataract, gingivitis.

**Meadow Sweet.—see Spiræa****Meconin Merck.—Pure, cryst.**

(400

(Anhydride of Meconinic [not Meconic] Acid; Opianyl).—Neutral subst. fr. opium, & also in Hydrastis canadensis, L. —  $\text{C}_{16}\text{H}_{16}\text{O}_4$ .—Colorl. cryst.—*Sol.* A., E., B., C., amyl alcohol, & hot W.—*Melt.* 102° C.

**Méhu's Reagent.—For albumin**

Solut. 1 part phenol & 1 part glacial-acetic acid in 2 parts alcohol.—Precipitates albumin from its solutions in the presence of  $\text{HNO}_3$  or  $\text{H}_2\text{SO}_4$ .

**Melampyrit.—see Dulcīt****Melanin Merck**

(40000

Pigment fr. choroid coat of eye & fr. melanotic ulcers.—Black powd.—*Sol.*, sl. in dil. alkalies.

**Meldola's Blue.—see Phenyl Blue****Melegueta Pepper.—see Amomum Melegueta****Melitin.—see Quercetin****Melia.—see Azedarach****Melilotus**

(Sweet Clover; Yellow Melilot; Yellow Sweet Clover).—Herb of Melilotus officinalis, Lam. Papilionaceæ.—*Habit.*: Europe; Asia; natur. to some extent in U. S.—*Etymol.*: Grk. "meli," honey, & "lotos," lotus, clover, i.e., honey-clover.—*Constit.*: Cumarin; resin; volat. oil.—*Emoll.*; *Loc.* Anod. (in resolv. plasters & poultices).

**Melissa**

(Balm; Lemon Balm; Bee or Garden Balm; Honey Plant).—Lvs. of Melissa officinalis, L. Labiatæ.—*Habit.*: Southern Europe; Asia Minor.

—*Etymol.*: Fr. Grk. "melissa," bee, i.e., the melissa attracts the bees.—*Constit.*: Volat. oil; bitter substance; tannin; gum.—*Diaphor.*; *Stim.*; *Carm.*; *Emmen.*; *Antispasm.*; *Antipyr.*—*Uses*: With other remedies to check fever & promote perspiration.—*Dose* 15–60 grains (1–4 Gm.).—*Fld. extr.*, 15–120 M (1–8 Cc.).

**Mellinide, or Mellitimide.—see Paramide****Mellitose, or Mellitriose.—see Raffinose****Menispermum**

(Yellow Parilla; Canadian Moonseed).—Rhizome & roots of Menispermum canadense, L. Menispermaceæ.—*Habit.*: North America (Canada to South Carolina).—*Etymol.*: Grk. "mene," moon, & "sperma," seed, referring to the crescent-shaped fruit or seed. "Canadense" refers to its habitat, Canada.—*Constit.*: Berberine; menispermic; starch; resin; tannin.—*Tonic*; *Alter.*; *Laxat.*; *Diuret.*—*Uses*: Particularly useful in gastric & syphilitic affections.—*Doses*: 15–60 grains (1–4 Gm.).—*Fld. extr.*, 15–60 M (1–4 Cc.).

**Mentha Aquatica.—see Watermint****Mentha Crispa.—see Crispmint****Mentha Piperita.—see Peppermint****Mentha Pulegium.—see Pulegium****Menthene.—see Pinene, Dextrogyrate****Menthene Merck**

(35

Fr. menthol by dehydration. (Not the terpene  $[\text{C}_{10}\text{H}_{16}]$  formerly called "menthen," or "menthene," which is ident. w. pinene).— $\text{C}_{10}\text{H}_{16}$ .—Clear, colorl. liq.; pleas. odor.—*Sp. Gr.* 0.8226 at 0° C.—*Sol.* A., E.—*Boil.* 165° C.—See also Pinene.

**Menthol Merck.—Highest Purity, Medicinal.—Recryst.**

(5

(Hexahydrothymol; Methylpropylphenyl Hexahydride; Peppermint Camphor).—Secondary alcohol fr. essential oil of Mentha piperita, L., or other peppermint oils.— $\text{C}_{10}\text{H}_{20}\text{O}$ , or,  $\text{C}_{10}\text{H}_{19}\text{OH}$ .—Colorl. cryst.; peppermint odor.—*Sol.* A., E., carbon disulphide, oils, acetic acid; v. sl. in W.—*Melt.* 43° C.—*Boil.* 212° C.—*Anal.*; *Anesth.*; *Antisept.*; *Stim.*—*Uses*: *Intern.*, tuberculosis, phth. fever, nerv. diar., & vomit.—*Extern.*, toothache, headache, neural, insect bites, & prurit. By brush, tampon, or atomizer: hay fever, nasal diphth., catarrh, asthma, & chronic bronch.—*Techn.*, in perfumery.—*Dose* 3–5 grains (0.2–0.3 Gm.).—*Max. D.* 90 grains (6 Gm.) daily in tuberculosis, in doses of 15 grains (1 Gm.) each.—*Appl.*, tampons 1 in 5 of oil; 1:10 oint. For toothache: put a crystal in cavity.—*Incomp.*, butyl-chloral hydrate, camphor, carbolic acid, hydrated chloral, chromium trioxide, euphorin, exalgine, naphthol, resorcinol, or thymol; potass. permangan.; pyrogallol.

**do. Merck.—Japanese**

(5

Fr. Japanese or Chinese oil of peppermint.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Menthol Benzoate Merck** (25)

Mixt. of menthol & benzoic acid.—Wh., cryst. masses.—*Sol.* A., E.—*Uses*: As of menthol.

**Menthol-Iodol** (30)

Iodol mixed w. 1% menthol.—Antisep.—*Uses*: Rhino-laryngology & dentistry; locally as dusting-powd.

*Menthol Valerate*.—see **Validol**

**Menyanthes**

(Bogbean; Buckbean; Marsh-trefoil; Water-shamrock).—Lvs. & root of *Menyanthes trifoliata*, L. Gentianaceae.—*Habit*: Europe; Asia; N. America south to Penn., Minn., & Calif.—*Etymol.*: Fr. Lat. "tres," three, & "folium," leaf. "Menyanthes," probably derived fr. Grk. "men," mouth, & "anthos," flower, indicating its use as an emmen.; or fr. "minynthia," a short time, fr. the short duration of the flowers.—*Constit.*: Menyanthin, C<sub>15</sub>H<sub>14</sub>O<sub>14</sub>.—Bitter Tonic; Astring.; Purgat.; Emmen.—*Doses*: Lvs., or Root: 10-25 grains (0.6-1.6 Gm.) in powd., or fld. extr., as tonic; 60 grains (4 Gm.) each.

*Menyanthin*.—see **Inulin**

*Mercurial Ointment*.—see **Ointment Mercurial**

**Mercurialis**

(Mercury Herb; French Mercury; Girl's Mercury).—Herb of *Mercurialis annua*, L. Euphorbiaceae.—*Habit*: Europe; adv. in U. S.—*Etymol.*: Lat. "mercurialis," i.e., mercurial herb.—*Constit.*: Mercurealine (ident. w. monomethylamine, CH<sub>3</sub>NH<sub>2</sub>?); trimethylamine.—Purg.; Diuret.; Emmen.; Antisyphil.; Emoll.—*Uses*: Amenor., dysmenor., serofula, & syphilitic affect.—*Dose*: Fld. extr., 5-30 ℥ (0.3-2 Ce.).

*Mercuric Potassium Iodide-Citric Acid Paper*.—see **Citro-Potassium Mercuric Iodide Paper**

*Mercuric & Mercurous Salts*.—see under **Mercury**

*Mercurio-vegetal*.—see **Manaca**

*Mercurius Vitæ*.—see **Antimony Oxychloride**

*Mercurio-iodo-hemol*.—see **Hemol, Mercurio-iodo-**

**Mercuriol** (30)

(Mercury Nucleide).—Compound of mercury & nucleic acid.—Abt. 10% Hg.—Light brownish-wh. powd.—*Sol.* W.; insol. A.—Antisep.; Astring.; Bactericide.—*Uses*: Chron. conjunctivitis, suppurative otitis media, ophthalmia neonatorum, infect. inflammations, gonorr., &c.—*Appl.*, gonorr., 0.5-3% solut.; ophthalm., 3-5% solut.; otitis, 5-10% solut.—*Dose* 3 grains (0.2 Gm.) 3 t. p. d.—*Caut.* Solutions should be freshly prepared.

**Mercury** (1)

(Quicksilver).—Metal.—Hg.—*Etymol.*: So named by the alchemists in honor of the planet Mercury. "Hydrargyrum," the Lat. name fr. the Grk. "hydrargyros," water-silver, because

the metal is liquid.—V. mobile, heavy, silvery, lustr. liq.—Sp. Gr. 13.596 at 0° C.—*Sol.*, nitric acid, hot sulphuric acid.—*Boil.* 357° C.—Antiseptic.—*Uses*: Intern., in form of salts, as specific in syphilis.—*Pharm.*, for preparing mercurial oint., mercury with chalk, &c.—*Techn.*, barometers, thermometers, pyrometers, mirrors, extraction of gold & silver fr. ores, making amalgams, in gas analysis & physical & chemical experiments, manuf. mercury salts, dentistry, & electrotechn.—*Antid.*, see Mercury Bichloride.—*Caut.* Mercuric salts are mostly poisonous, some extremely so. Mercurous salts are less poisonous, some hardly at all.

**Mercury.—Redistilled** (2)

do. Merck.—By electrolysis (4)

**Mercury Merck.—Reagent** (6)

Hg.—*Tests*: (*Foreign Met.*) a: heat 20 Gm. in porcel. dish under a good draught—no wghble res.; b: boil 5 Gm. + 5 Ce. H<sub>2</sub>O + 4.5 Gm. Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> for abt. 1 min. in test-tube—Hg should retain lustrous appearance, & acquire at most but sl. yellow tinge.—*Uses*: In eudiometers; determ. N; detect. albumen; extemporaneous prep. mercury salts.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Mercury Acetate Merck.—Mercuric** (6)

Hg(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub>.—Wh., cryst. powd.—*Sol.*, eas. W. Antisyphil.—*Uses*: Intern., syphilis.—*Extern.* freckles.—*Dose* 1/10-1 grain (0.006-0.06 Gm.) —*Appl.*, solut. 1-1.5: 100 rose water for freckles.—*Antid.* See Mercury Bichloride.

**Mercury Acetate Merck.—Mercurous** (6)

Hg<sub>2</sub>(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub>.—Wh., cryst. powd.—*Sol.*, sl. in W.—Antisyphil.—*Dose* 1/10-1 grain (0.006-0.06 Gm.) 2-3 t. p. d.—*Max. D.* 1 grain (0.06 Gm.) single; 3 grains (0.2 Gm.) per day.—*Appl.*, in 1-2: 25 oint.—*Caut.* Keep well stop'd, fr. light.

*Mercury Alanin*.—see **Mercury Aminopropionate**

**Mercury Albuminate Merck.—Dry** (4)

(Albumin w. 0.4% mercuric chloride).—Wh. to grayish-wh. powd.—*Sol.* W. with turbid.—Antiseptic.—*Uses*: *Extern.*, triturated w. milk-sugar (1.5:100) as antisep. dress. for wounds.—*Caut.* Solut. do not keep well.

**Mercury Alginate.—Mercuric**

(Alginoide Mercury[ic]).—Fr. sod. alginate & solut. mercuric nitrate.—Grayish-wh. powd.—*Sol.*, ammonia; solut. does not attack surgic. instruments.—Decomp. in intestines.

**Mercury Alginate.—Mercurous**

(Alginoide Mercury[ous]).—Fr. sod. alginate & solut. mercurous nitrate.—Gray powd.; 33% Hg.—Is blackened by ammonia.—Decomp. in intestines.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Mercury Amidoacetate.**—see **Mercury Glycocholate**

**Mercury Aminopropionate Merck** (100  
(Mercuric Alanin).— $\text{Hg}(\text{C}_3\text{H}_6\text{NO}_2)_2$ .—Wh. need.  
—*Sol.* 3 W.—*Alter.*; *Antisyph.*—*Uses:* Hypo-  
derm., or by mouth in syph.—*Dose*  $1/12$ – $1/6$  grain  
(0.005–0.01 Gm.).

**Mercury Ammoniated Merck.**—**Lumps** (2  
(Ammoniated Mercury Chloride; White Pre-  
cipitate; Mercury & Ammon. Chloride; Amido-  
mercuric Chloride).—By precip. solut. mercuric  
chloride w. ammonia in excess.— $\text{HgNH}_2\text{Cl}$ .—  
Wh., pulverulent lumps; earthy, styptic, metal.  
taste.—*Sol.*, warm acids; cold solution amm.  
carbonate, & in sod. thiosulphate.—*Antisep.*;  
*Alter.*—*Uses:* *Extern.*, as white-precipitate oint.  
(1:10) in syph. erup. & sores, iritis (0.1–0.2:10  
lanum & petrolatum), skin dis., &c. *Not used*  
*internally.*—*Caut.* Poison! French “White Pre-  
cipitate” (*Précipité Blanc*) is calomel. Do not  
confound the two when French prescriptions are  
to be compounded.

**do. Merck.**—**Powder** (2

**Mercury, Ammoniated Nitrate.**—see **Mercury  
Oxide Black, Hahnemann**

**Mercury Anilinate**

$\text{Hg}(\text{C}_6\text{H}_4\text{NH}_2)_2$ .—Loose, wh., odorl., tastel.,  
cryst. powd.; 52.1% Hg.—*Insol.* W.—*Uses:*  
Syphilitic sores, &c.—*Dose*  $1/4$  grain (0.015 Gm.)  
3–4 t. p. d.—*Appl.*, by inunct. in 30–35% oint.;  
to sores in 0.5–3% oint.—*Inj.*, intramuscularly  
in 30–35% susp. in liq. petrolatum.

**Mercury Arsenate Merck** (8  
(Mercuric Arsenate).— $\text{Hg}_2\text{H}_2(\text{AsO}_4)_2$ .—Yellow  
powd.—*Sol.*, acids; *insol.* W.—*Uses:* Syph. dis.

**Mercury Arsenite Merck.**—**Pure** (5  
(Mercurous Arsenite).— $\text{Hg}_3\text{AsO}_3$ .—Brownish  
powd.—*Sol.*, acids; *insol.* W.

**Mercury Asparaginate Merck** (30  
(Asparagin-mercury).—Fr. mercuric oxide &  
hot aqu. solut. asparagin.— $\text{Hg}(\text{C}_4\text{H}_7\text{N}_2\text{O}_3)_2$ .—  
Yellowish powd.—*Sol.*, acids; *insol.* W.—*Alter.*;  
*Antisep.*—*Uses:* Syph.; said to produce no local  
disturbance & to be wholly eliminated fr. system  
in 24 hours.—*Dose*  $1/12$ – $1/6$  grain (0.005–0.01  
Gm.) p. day, hypoderm.

**Mercury Benzoate Merck.**—**Mercuric.**—**Sol-  
uble** (6

$\text{Hg}(\text{C}_7\text{H}_5\text{O}_2)_2 + \text{H}_2\text{O}$ .—Wh. cryst.—*Sol.*, sl. A.,  
eas. in solut. sodium chloride & in ammon. ben-  
zoate.—*Alter.*; *Antisep.*—*Uses:* Syph., & skin dis.  
—*Dose*  $1/30$ – $1/10$  grain (0.002–0.006 Gm.).—*Inj.*,  
hypoderm., 15 m (1 Cc.) of solut. of 0.25 merc.  
benz., 0.25 sod. chloride, & 30 water, per day.

**Mercury Benzoate Merck.**—**Mercurous** (5

$\text{Hg}_2(\text{C}_7\text{H}_5\text{O}_2)_2$ .—Wh., cryst. powd.—*Insol.* W., A.

**Mercury Betanaphthol (or -naphtholate).**—see  
**Mercury Naphtholate**

**Mercury Bichloride Merck.**—**Lump, cryst., gran.,  
or powd.** (2

(Mercuric Chloride; Corrosive Sublimate; Mer-  
cury Perchloride; Corrosive Mercury Chloride).  
— $\text{HgCl}_2$ .—Wh., transp., heavy, cryst. masses,  
or lustr. cryst.; acid, persistent, metal. taste.  
—*Sol.* 3 A.; 4 E.; 16 W. at 15° C. (13 W., 3 A.,  
14 G. at 25° C.; 2 boil. W., & 12 boil. A., U.S.P.).  
—*Melt.* 265° C.—*Subl.* 300° C.—*Alter.*; *Tonic*;  
*Antisep.*; *Germicide*; *Eschar.*—*Uses:* *Intern.*,  
syph., chronic rheum., & skin dis.—*Extern.*, in  
collodion as caustic; nevi, &c.; in alc.: ring-  
worm; in W.: collyrium in vener. ophthal., for  
leprosy, ulc., & var. skin dis., antisep. dress. in  
surg. operat., in diphth., disinf., &c.—*Techn.*,  
preserving wood (kyanising) and anatomical  
specimens, also embalming; disinfect.; etching  
steel and iron; white reserve in fabric printing;  
chemical reagent; freeing gold fr. lead; brown-  
ing iron & steel; magic photograms; mordant  
for rabbit- & beaver-furs in hat-making; stain-  
ing wood & vegetable ivory pink; manuf. ink for  
micrography.—*Dose*  $1/100$ – $1/8$  grain (0.0006–  
0.008 Gm.).—*Inj.*, hypoderm.: Mercuric chloride  
 $1/2$  grains (0.1 Gm.), sodium chloride, 15 grains  
(1 Gm.), & W., 1.550 m (100 Cc.). Use 8–15 m  
(0.5–1 Cc.).—*Appl.* (wash), 1:1,000–5,000.  
—*Max. D.*  $1/3$  grain (0.02 Gm.), single 1 grain  
(0.06 Gm.), p. day.—*Antid.*, zinc sulphate,  
emetics, stomach siphon, white of egg, milk in  
abundance, chalk mixture, castor oil, table salt,  
reduced iron, iron filings. White of egg & milk  
2 or 3 t. p. d. for a week.—*Incomp.*, reduced  
iron, sulphurous acid, formic acid, hypochlorites,  
albumen, alkalies, carbonates, alkaloidal salts,  
ammonia, antimonous & arsenous salts, bro-  
mides, borax, copper salts, ferrous salts, gelatin,  
hypophosphites or hypophosphorus acid; in-  
fusious cinchona, Colombo, oak bark, & senna;  
lead salts, lime-water, phosphates, silver nitrate,  
potass., or sodium sulphate, sulphides, tannic  
acid, vegetable astringents, zinc salts.—*Caut.*  
Exceedingly poisonous!

**do. Merck.**—**Recryst.** (2

**Mercury Bichloride Merck.**—**Reagent** (4

(Mercuric Chloride; Corrosive Sublimate).—  
 $\text{HgCl}_2$ .—Wh., translu., prism. cryst.—*Sol.* 16  
cold, 3 boil., W.; 3 A.; 12–14 anhydr. E. at  
15° C.—*Tests:* (*Impur. Not Pptd. by H<sub>2</sub>S*) 5 Gm.  
+ 100 Cc.  $\text{H}_2\text{O}$  + 5 Cc.  $\text{HCl}$  (sp. gr. 1.124); pass  
in  $\text{H}_2\text{S}$  gas till all Hg pptd.; filter; evap. colorl.  
filtrate to dryness on W.-bath—no wghble res.  
—(A) shake the  $\text{HgS}$  just obtained w. 5 Cc.  
 $\text{NH}_4\text{OH}$  + 45 Cc.  $\text{H}_2\text{O}$ ; filter; acidul. w.  $\text{HCl}$ —  
no yellow color, & no ppt.—(*HgCl<sub>2</sub>*; o. *Impur.*  
*Insol. in E.*) 1 Gm. powd. compl. solub. in 25  
Cc. E.—*Uses:* Determ. Fe; detect. formic,  
hydriodic, & phosphorous acids, tin, various  
alkaloids; fixing agent in microscopy; in  
reagents for albumen, ammonia & acetone.

*Note.*—For complete tests see “Chemical  
Reagents: Their Purity & Tests,” published by  
D. Van Nostrand Co., New York. This reagent  
conforms to the standard therein given.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potas-  
sium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sul-  
phate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine;  
2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Mercury Bichloride, Ammoniated.*—see **Mercury & Ammonium Bichloride**

**Mercury Bichloride Carbamidated Merck** (12)  
(Mercury-urea Chloride).— $\text{HgCO}(\text{NH}_2)_2\text{Cl}_2$ .—  
Colorl. cryst.—*Sol.*, hot A.—*Alter.*; *Antisep.*—  
*Uses:* *Extern.*, syph., serof., & chronic rheum.;  
subcutan. in 1% aq. solut.—*Dose* 8–15 m (0.5–  
1 Cc.) of solut.

*Mercury Bichloride, Peptonized.*—see **Mercury Peptonized**

*Mercury Bichromate.*—see **Mercury Dichromate**

*Mercury Biniodide.*—see **Mercury Iodide, Red**

*Mercury Bisulphate.*—see **Mercury Sulphate, Mercuric**

**Mercury Bitartrate Merck** (6)  
(Mercurous Bitartrate).— $\text{HgHC}_4\text{H}_4\text{O}_6$ .—Wh.,  
cryst. powd.—*Insol.* W.

**Mercury Bromide.**—**Mercuric** (6)  
(Mercury Dibromide).— $\text{HgBr}_2$ .—Silvery, lustr.  
scales.—*Sol.* W., A., & E.—*Alternative*; *Anti-*  
*syphil.*—*Uses:* As of mercury bichloride.—  
*Dose*  $\frac{1}{15}$ – $\frac{1}{4}$  grain (0.004–0.015 Gm.).

**Mercury Bromide Merck.**—**Mercurous** (6)  
 $\text{Hg}_2\text{Br}_2$ .—Wh. powd.—*Insol.* W.—*Alter.*; *Anti-*  
*sep.*—*Uses:* Mild mercurial, greatly resembling  
calomel in action.—*Dose* 1 grain (0.06 Gm.) in  
divided doses grad'ly increased up to 8 grains  
(0.5 Gm.) per day.

**Mercury Cacodylate Merck** (20)  
(Mercuric Cacodylate).— $\text{Hg}[(\text{CH}_3)_2\text{AsO}_2]_2$ .—  
Wh. cryst.—*Sol.* W.—*Uses:* Syphilis.—*Dose*  
 $\frac{1}{2}$  grain (0.03 Gm.) p. d. injected intramuscul.

*Mercury Carbolate.*—see **Mercury Phenate**

*Mercury Carbonate, Basic.*—see **Mercury Carbonate, Mercuric**

**Mercury Carbonate Merck.**—**Mercuric** (8)  
(Basic Mercury Carbonate).— $\text{HgCO}_3 + 3\text{HgO}$ .—  
Reddish powd.—*Sol.*, acids; *insol.* W.

**Mercury Carbonate Merck.**—**Mercurous** (6)  
 $\text{Hg}_2\text{CO}_3$ .—Yellow to yellowish-brown powd.;  
loses carbon dioxide on expos.—*Insol.* W.

*Mercury Chloride, Ammoniated.*—see **Mercury Ammoniated**

*Mercury Chloride Corrosive.*—see **Mercury Bichloride**

**Mercury Chloride Mild Merck.**—**Sublimed** (2)  
(Mercurous Chloride; Calomel; Mercury Mono-  
chloride).— $\text{Hg}_2\text{Cl}_2$ .—Impalp., yellowish-wh.,  
heavy powd.—*Insol.* W., A., E.—*Subl.*, 400–  
500° C., without melt.—*Cath.*; *Alter.*; *Diuret.*;  
*Antisep.*; *Anthelm.*—*Uses:* *Intern.*, constip.,  
cholera, dysent., cardiac dropsy, pleurisy,  
malign. fever, malaria, syph., gout, worms.—  
*Extern.*, smallpox pitting, pruritus, diphth.;  
membr. croup (fumigation), condyloma, warts.

Effect of dose not prop. to size. Small, well-  
trituated doses better than large, coarse ones.  
Larger dose in prop. to age of children than w. o.  
medic.—*Techn.*, the sublimed prep is used in  
dark-green Bengal lights, calomel paper, mixed w.  
gold in painting on porcelain, &c.—*Dose:* *Cath.*,  
2–15 grains (0.12–1 Gm.); *antiseph.*,  $\frac{1}{3}$ –1 grain  
(0.02–0.06 Gm.); *diuret.*, 2–3 grains (0.12–0.2  
Gm.) 3 t. p. d.; *intern. antisep.*,  $\frac{1}{8}$ – $\frac{1}{4}$  grain  
(0.008–0.015 Gm.); *cholag.*,  $\frac{1}{4}$ – $\frac{1}{2}$  grain (0.015–  
0.03 Gm.).—*Appl.* 1:5 oint. in pruritus vulvæ,  
& pruritus ani fr. hemorrhoids.—*Incomp.*, sul-  
phurous acid, hydrocyanic acid, alkali chlorides,  
bromides, iodides, sulphates, sulphites, car-  
bonates, hydroxides, organic acids, lime-water,  
acacia, nirol, alkalies, ammonia, golden anti-  
mony sulphide, cocaine, cyanides, copper salts,  
hydrogen peroxide, iodine, iodoform, lead salts,  
silver salts, soap, sulphides.

**Mercury Chloride Mild Merck.**—**Steam condensed** (2)

Wh. powd.—*Insol.* W.—*Uses:* Dusting-powd.  
in ophthalmology, in blennor., granular in-  
flam. of eye, corneal opacities, &c.

**do. Merck.**—**Precipitated** (2)

*Uses:* More active than sublimed calomel.  
Usually given in doses  $\frac{1}{3}$  those of the latter.

**do.**—**English, "M. & B."** (2)

*Mercury Chloriodide.*—see **Mercury Iodochloride**

*Mercury Cholate.*—see **Mergal**

**Mercury Chromate Merck** (5)  
(Mercuric Chromate).— $\text{HgCrO}_4$ .—Yellow powd.  
—*Sol.*, acids; *insol.* W.

**Mercury Citrate Merck** (5)  
(Mercurous Citrate).— $\text{Hg}_3\text{C}_6\text{H}_5\text{O}_7$ .—Wh. powd.  
—*Sol.*, v. sl. W.

*Mercury, Colloidal.*—see **Hyrgol**

**Mercury Cyanide Merck** (5)  
(Mercuric Cyanide).— $\text{Hg}(\text{CN})_2$ .—Colorl., transp.  
prisms; bitter, metal. taste. Darkened by  
light.—*Sol.* W., A.—*Alter.*; *Antisyphil.*; *Anti-*  
*sep.*; *Tonic*, &c.—*Uses:* Inst. of corrosive sub-  
limate; much less irritating. *Recom.* in diphth.,  
membr. croup & syph.—*Techn.*, in manuf.  
cyanogen gas (by heating), & as reagent for  
palladium.—*Dose*  $\frac{1}{12}$ – $\frac{1}{6}$  grain (0.005–0.01 Gm.)  
in solut.—*Inj.*  $\frac{1}{12}$ – $\frac{1}{6}$  grain (0.005–0.01 Gm.)  
hypoderm.—*Extern.*, as gargle 1:10,000 solut.;  
in fibr. rhinitis, tampons impregn. w. 0.04%  
aqu. solut.—*Max. D.*  $\frac{1}{3}$  grain (0.02 Gm.) single;  
1 grain (0.06 Gm.) per day.—*Antid.*, 0.1%  
solut. sulphurated potassa intern.; also as in  
mercury bichloride.—*Caut.* Very poisonous!  
Keep in dark amber bottle.

*Mercury Diammonium Chloride.*—see **Mercury & Ammonium Bichloride**

*Mercury Dibromide.*—see **Mercury Bromide, Mercuric**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Mercury Dichromate Merck.**—Precipitated (6)  
(Mercuric Bichromate).— $\text{HgCr}_2\text{O}_7$ .—Heavy,  
red, cryst. powd.—*Sol.*, acids; insol. in usual  
solvents.

**Mercury Diethide** (240)  
(Mercuric Diethide; Mercury-ethyl).—React.-  
prod. ethyl iodide w. sodium amalgam in pres-  
ence of acetic ether.— $\text{HgC}_4\text{H}_{10}$ , or,  $\text{Hg}(\text{C}_2\text{H}_5)_2$ .  
—*Transp.*, colorl. liq.; faint ether. odor.—*Sp.*  
*Gr.* 2.46.—*Sol.*, sl. in A., E.—*Boil.* 159° C.—  
*Caut.* Very poisonous!

**Mercury Diiodoparaphenolsulphonate.**—see  
**Sozoiodole-Mercury**

**Mercury Diiodosalicylate Merck** (85)  
(Mercuric Diiodosalicylate).— $\text{Hg}(\text{C}_7\text{H}_3\text{I}_2\text{O}_2)_2$ .—  
Yellow, amorph. powd.; 20.5% mercury, 52%  
iodine.—*Sol.* A.—*Uses:* As o. insol. mercury  
comp., in 10% oily suspension with liq. petrola-  
tum, for intramuscular injections.

**Mercury Dimethide** (300)  
(Mercuric Dimethide; Mercury-methyl).—React.-  
prod. sodium amalgam w. methyl iodide in  
presence of acetic ether.— $\text{Hg}(\text{CH}_3)_2$ .—Colorl.  
oil; peculiar odor & taste.—*Sp. Gr.* 3.069.—*Sol.*  
A., E.—*Boil.* 95° C.—*Caut.* Poisonous!

**Mercury Diphenyl** (140)  
(Mercury-phenyl; "Hydrargyrum Diphenyla-  
tum" [see caution at Mercury Phenate]).—A  
mercury substit. deriv. of phenol.— $\text{Hg}(\text{C}_6\text{H}_5)_2$ .  
—Wh. cryst.—*Sp. Gr.* 2.318.—*Sol.* B., C., car-  
bon disulphide, E. & hot A.—*Melt.* 120° C.—  
*Caut.* Very poisonous!—Not Mercury Phenate.

**Mercury-ethyl.**—see **Mercury Diethide**

**Mercury Ethylchloride** (150)  
Fr. mercuric chloride w. mercury ethide.—  
Colorl., shin. scales; unpleas. ether. odor.—*Sol.*,  
sl. in W., A.—*Uses:* As inj. inst. of mercuric  
chloride; indifferent to albumen.

**Mercury Ethylenediaminesulphate.**—see **Subla-  
mine**

**Mercury Ferrocyanide Merck** (12)  
(Mercuric Ferrocyanide).— $\text{Hg}_2\text{Fe}(\text{CN})_6$ .—Brown  
powd.—Insol. W., A., & acids.

**Mercury Formamidate Merck.**—1%, 2%, & 10%,  
solut. (2)  
Solutions of 1, 2, & 10% respectively of mer-  
curic oxide in formamide.—Antisyph.—*Uses:*  
Hypoderm. in syphilis; better adapted for use  
than corrosive sublimate, because inject. less  
painful.—*Dose* 15 m (1 Cc.) of 1% solut. ( $=1/6$   
grain [0.01 Gm.]  $\text{HgO}$ ) every 2d day.

**Mercury Gallate Merck** (6)  
(Mercuric Gallate).— $\text{Hg}(\text{C}_6\text{H}_2(\text{OH})_3\text{CO}_2)_2$ .—  
Grayish-brown, amorph. powd.; 37% mercury.  
—*Sol.*, alkalies; insol. W., A.—Alter.; Antisyph.

—*Uses:* Said not to produce salivation or stom-  
atitis. — *Dose*  $3/4$ –1 $1/2$  grains (0.05–0.1 Gm.)  
daily in pills.

**Mercury Glycocholate Merck.**—1% Solut. (4)  
(Mercury Amidoacetate).—Stable solut. mer-  
cury glycocholate,  $\text{Hg}(\text{C}_{26}\text{H}_{42}\text{NO}_6)_2$ , containing  
1% mercuric oxide.—Antisyph.—*Dose* 8–15 m  
(0.5–1 Cc.) ( $=1/12$ – $1/6$  grain [0.005–0.01 Gm.]  
 $\text{HgO}$ ), every 2d day, hypoderm.

**Mercury, Hahnemann's Soluble.**—see **Mercury  
Oxide, Black**

**Mercury Herb.**—see **Mercurialis**

**Mercury Imidosuccinate.**—see **Mercury Succini-  
mide**

**Mercury Iodate Merck** (18)  
(Mercuric Iodate).— $\text{Hg}(\text{IO}_3)_2$ .—Wh., amorph.  
powd.—*Sol.* W., containing sodium chloride  
or potassium iodide.—*Uses:* Syphilis.—*Dose*  
 $1/6$ – $1/4$  grain (0.01–0.015 Gm.) subcut. ev. 2–4 d.

**Mercury Iodide, Green.**—see **Mercury Iodide,  
Yellow**

**Mercury Iodide Red Merck** (4)  
(Mercuric Iodide; Mercury Biniodide).— $\text{HgI}_2$ .  
—Heavy, scarlet-red, amorph. powd.—*Sol.*,  
solut. soluble iodides, mercuric chloride, hot  
alkali chlorides, & sod. thiosulphate; insol. W.;  
130 A. at 15° C.; (116 A., 83 E., & 1,340 C. at  
25° C.; 15 boil. A., U. S. P.).—*Melt.* 253° C.—  
Alter.; Germic.; Antisep.; Antisyph.; Emmen.  
—*Uses:* Intern., & Extern., in syph., serof.,  
lupus, & skin dis., espec. when obstinate. Oint.,  
1–5% in fat.—*Dose*  $1/15$ – $1/4$  grain (0.004–0.015  
Gm.) in pills or in W. with potass. iodide.—  
*Max. D.*  $1/3$  grain (0.02 Gm.) single; 1 grain  
(0.06 Gm.) daily.

*Note.*—This preparation is particularly de-  
sirable for general use, on account of its uni-  
formity & freedom from corrosive sublimate.

**Mercury Iodide Yellow (or Green) Merck** (4)  
(Mercurous Iodide; Green Mercury Iodide or  
Protoiodide).— $\text{HgI}$ .—Bright yellow, or light  
greenish-yellow, amorph. powd.; darkens on  
expos. to light—Insol. W., A., E.—Antisyph.;  
Emmen.; Alter.—*Uses:* Advanced syph., serof.,  
&c. *Never prescribe* this w. a soluble iodide,  
since mercuric iodide (highly poisonous) is  
formed.—*Dose*  $1/2$ –2 grains (0.03–0.12 Gm.).—  
*Incomp.*, iodides.—*Caut.* Keep in amber bot.

*Note.*—This particularly pure article is spe-  
cially prepared for use in serofula & syphilis.

**Mercury Iodochloride Merck** (12)  
(Mercuric Chloroiodide).— $2\text{HgCl}_2\cdot\text{HgI}_2$ .—Red,  
cryst. powd.—*Sol.* A.—Antisyph.—*Dose*  $1/6$ – $1/3$   
grain (0.01–0.02 Gm.).—*Appl.*, as 1:80 oint.

**Mercury Lactate Merck** (7)  
(Mercurous Lactate).— $\text{Hg}_2(\text{C}_3\text{H}_5\text{O}_3)_2$ .—Wh.,  
cryst. powd.—*Sol.*, sl. W.—*Uses:* Syphilis.—

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potas-  
sium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sul-  
phate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine;  
2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Dose* 1 fl. dr. of 1-1000 aq. solut. — *Subcut.*, inject. of 15 m (1 Cc.) of 1- aq. solut. daily.

**Mercury, Mass of** (1)  
(Blue Mass; Blue Pill. — 33% finely divided mercury — *Cath.*; *Alter.* — *Uses:* Constip., incr. biliary secret., & disinf. alim. tract, prob'ly mild-est merc. salag. — *Dose* 3-15 grains (0.2-1 Gm.).

**do. — Powder** (1)

*Mercury-methyl.* — see **Mercury Dimethide**

*Mercury Monochloride.* — see **Mercury Chloride**

**Mercury Naphtholacetate Merck** (13)  
(Mercuric Naphtholacetate) —  $\text{Hg}_2\text{C}_6\text{H}_4\text{O}_2\text{C}_2\text{H}_4\text{O}_2$ . — Yellowish powd. — *Sol.* dil. alkalis.

**Mercury Naphtholate Merck** (10)  
(Mercuric Naphtholate; Mercury Betanaphthol). —  $\text{Hg}_2\text{C}_6\text{H}_4\text{O}_2$ . — Grayish-wh. powd. — *Abt.* 30% mercury. — *Antiseptic.* — *Uses:* *Intern.*, typhoid condit. — *Extern.*, wounds & skin dis. — *Dose* 1 grain (0.06 Gm.).

**Mercury Nitrate Merck. — Mercuric** (4)  
Fr. mercuric oxide & warm nitric acid. —  $\text{Hg}(\text{NO}_3)_2$ . — Wh., deliq. powd. — *Sol.* W. — *Antisyph.*; *Antisept.*; *Alter.* — *Uses:* *Intern.*, syph., scrof. — *Extern.*, appl. to freckles, & oint. to abort boils. — *Techn.*, in milk analysis (by Ladd's method), titrating urea, & in solut. as Millon's reagent. — *Dose*  $\frac{1}{15}$ – $\frac{1}{4}$  grain (0.004–0.015 Gm.). — *Caut.* Poison!

**do. — Solution. — U. S. P.**

*Abt.* 60% mercuric nitrate,  $\text{Hg}(\text{NO}_3)_2$ , & *abt.* 11% free nitric acid. — Clear, colorl. liq. — *Sp. Gr.*, *abt.* 2.086 at 25° C. — *Caustic*; *Antisept.* — *Uses:* *Extern.*, caustic for cancers, chancres, ulc. of cervix, boils, & var. skin dis.

**Mercury (ic) Nitrate Paper**

Used in urinalysis for detection of albuminoids.

**Mercury Nitrate Merck. — Mercurous, Basic** (4)  
(Mercurous Subnitrate). — Yellow powd. — *Sol.*, nitric acid. — *Uses & Doses:* Instead of mercuric oxide in France.

**do. Merck. — Mercurous, Normal** (4)

Fr. excess of mercury & cold nitric acid of *Sp. Gr.* 1.2. —  $\text{Hg}(\text{NO}_3) + \text{H}_2\text{O}$ . — Colorl. cryst. — *Sol.*, v. dil. nitric acid; sm. quant. W.; decomp. much W. — *Antisyph.*; *Antisept.*; *Caustic.* — *Dose*  $\frac{1}{30}$ – $\frac{1}{4}$  grain (0.002–0.015 Gm.) several t. p. d. — *Max. D.*  $\frac{1}{3}$  grain (0.02 Gm.) single; 1 grain (0.06 Gm.) p. day.

**do. — Solution**

*Abt.* 10%  $\text{Hg}(\text{NO}_3)$ . — Colorl. liq. — *Sp. Gr.* 1.10 at 15° C. — *Misc.* W. w. turbid. — *Caustic*; *Antisyph.* — *Uses:* Cancerous & syphil. ulcers. — *Dose* 1–2 m (0.06–0.12 Cc.), well diluted 1–2 t. p. d. — *Appl.*, pure to cancerous & syph. ulcers; as compress & wash in 1–1:200 solut. w. W. — *Max. D.*  $\frac{1}{2}$  m (0.1 Cc.) single; 8 m (0.5 Cc.) p. d.

**Mercury Nitrate Merck. — Mercurous. — Reagent** (5)

$\text{Hg NO}_3 + \text{H}_2\text{O}$ . — Colorl., monoclin. tablets or prisms. — *Sol.* 2 warm W. — *Solut.*, is acid, & is decomp. by much W. — *Tests.* (*Res.*, ignite 2 Gm. — none weighable. — (*Mercuric Salts*) 1 Gm. + 5 Cc.  $\text{H}_2\text{O}$  + 3–5 drops  $\text{HNO}_3$  (sp. gr. 1.153) + 15 Cc.  $\text{H}_2\text{O}$  + excess  $\text{HCl}$ ; filter; add aq.  $\text{H}_2\text{S}$  to filtrate — only trace of ppt. — *Uses:* Test for easily oxidizable substs. (e.g., formic acid); in reagents for phenol & leucin.

*Note.* For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

*Mercury Nitrate, Ammoniated.* — see **Mercury Oxide, Black**

*Mercury Nuclide.* — see **Mercuriol**

**Mercury Oleate Merck. — 5%, 10%, 15%, & 20%** (2)

*Solut.* of yellow mercuric oxide in oleic acid — Yellow to reddish liq., semi-solid, or solid mass. — *Sol.* E. & oils. — *Antisept.*; *Alter.*; *Antisyph.*; *Antiparasitic.* — *Uses:* *Extern.*, skin dis., pediculi, & for administration of mercury by inunction. — *Appl.*, as liniments & oint. 1–2 (of 10% prep.): 5 w. olive oil, lanum, or lard. Pain following inunctions is avoided by adding 1–2% morphine oleate. In alopecia areata, mixt. of 7 mercury oleate (10%) & 1 acetic ether is used.

**do. Merck. — 25%. — U. S. P.** (3)

A firm, yellow mass of butter-like consist. — *Alter.*; *Antisept.*; *Antisyph.* — *Uses:* Hereditary syph., inflamed joints, syph. swellings, skin dis., & scrof. inflam. — *Dose*, by inunct., 10–15 grains (0.6–1 Gm.) in syph. in children. — *Max. D.*, when given intern.,  $\frac{1}{3}$  grain (0.02 Gm.) single; 1 grain (0.06 Gm.) daily.

**do. Merck. — 40%** (3)

**Mercury Oxide Black Hahnemann-Merck** (4)

(Hahnemann's Soluble Mercury; Ammoniated Mercury Nitrate; Black Precipitate; Oxydimercurous Ammonium Nitrate). — Approx.:  $\text{Hg}_2\text{O} + \text{NH}_2\text{Hg}_2\text{NO}_3$ . — Black or grayish-black powd. — *Sol.*, acetic acid; insol. W., A. — *Uses:* Syphilis. — *Dose*  $\frac{1}{4}$ –3 grains (0.015–0.2 Gm.). — *Appl.*, in 1–5:25 oint. — Now obsolete. — *Caut.* Sensitive to light; keep in dark amber bot.

**Mercury Oxide Red Merck** (2)

(Red Mercuric Oxide; Red Precipitate). —  $\text{HgO}$ . — Heavy, bright, orange-red powd. — *Sol.*, hydrochl. acid, nitric acid; insol. W., A. — *Stim.*; *Escharotic*, &c. — *Uses:* *Extern.*, chancres, indol. ulc., ringworm, pediculi, & in 0.5–1% oint. as eye salve in contagious ophthal. — *Techn.*, for prepar. other mercurials, as paint for ships' bottoms, diluting pigments for painting on porcelain, & in chem. analysis. — *Antid.*, see **Mercury Bichloride**. — *Incomp.*, chlorides. — *Caut.* Very poisonous!

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Mercury Oxide Red Merck.**—Powd. (2)

do. Merck.—Levigated (2)

**Mercury Oxide Red Merck.**—Reagent (5)

HgO.—Heavy, yellowish-red powd.—*Sol.*, eas. dil. HCl or  $\text{HNO}_3$ .—*Tests:* (Res.) ignite 2 Gm. — none wghble.—(Cl) 1 Gm.+5 Cc.  $\text{HNO}_3$  (sp. gr. 1.153)+15 Cc.  $\text{H}_2\text{O}$ +solut.  $\text{AgNO}_3$ —not more than sl. opalesc. turb.—( $\text{H}_2\text{SO}_4$ ) 1 Gm.+5 Cc.  $\text{HNO}_3$ +15 Cc.  $\text{H}_2\text{O}$ +solut.  $\text{Ba}(\text{NO}_3)_2$ —no turb.—( $\text{HNO}_3$ ) 1 Gm.+2 Cc.  $\text{H}_2\text{O}$ +2 Cc.  $\text{H}_2\text{SO}_4$ ; overlay w. 1 Cc. solut.  $\text{FeSO}_4$ —no color zone even on long standing.—*Uses:* Ultimate organic analysis; in reagents for dextrose & acetone.

*Note.* For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Mercury Oxide Yellow Merck.**—Wet process (3)

(Yellow Mercuric Oxide; Yellow Precipitate).—HgO.—Orange-yellow, amorph. powd.—*Sol.*, in nitric acid.—Antiseph.; Antisyph., &c.—*Uses:* Inst. of red oxide in inflam. of eye & for intramuscular inject. in syph. Preferred to the red oxide because of its being in much finer powder.—*Dose:* As intramusc. inject., 1 Cc. of 1:30 olive oil every 8 days.—*Appl.*, 1:100 oint.

**Mercury Oxide Yellow Merck.**—Reagent (6)

HgO.—Heavy yellow powd.—*Tests:* As of mercury oxide, red.—*Uses:* Volumetr. determ. HCN; in reagents for coal-tar dyes.

*Note.* For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Mercury Oxycyanide Merck** (7)

(Mercuric Oxycyanide).—HgO.HgCN<sub>2</sub>.—Wh., cryst. powd.—*Sol.*, hot W.—Antiseptic.—*Uses:* Extern., diphth., erysip., & skin dis.; said superior as antisept. dress. to mercury bichloride because six times more active as germicide & less easily absorbed.—*Appl.* 0.6% solut. for wounds & in surg. operat. In blennor. neonat. (in which it is preferred to corros. sublim. & silver nitrate) the conjunctiva is washed 2 t. p. d. with a 0.2% solut., ice compresses being applied during the intervals. In other acute dis. of conjunctiva 1-2% solut. are used.

**Mercury Paraphenolsulphonate.**—see Hydrargyrol

**Mercury Paraphenolsulphonate-Ammonium Tartrate.**—see Asterol

**Mercury Peptonate.**—see Mercury Peptonized

**Mercury Peptonate, Paal.**—see Glutin-Peptone-Sublimale Hydrochloride

**Mercury Peptonized Merck.**—Dry, 10% (4)

("Mercuric Peptonate," Mercury Bichloride, Peptonized).—Yellowish-brown powd.; 10% mercury bichloride.—*Sol.* W.—*Dose*  $\frac{1}{2}$ -1 $\frac{1}{2}$  grains (0.03-0.1 Gm.).

**Mercury Peptonized Merck.**—Solution, 1% (2)

Yellowish-brown, clear liq.; 1% mercury bichloride.—*Uses:* Hypoderm. in syph., 15  $\text{m}$  (1 Cc.), equiv. to  $\frac{1}{6}$  grain (0.01 Gm.) corros. subl., properly diluted, per day.

**Mercury Perchloride.**—see Mercury Bichloride

**Mercury Sulphate.**—see Mercury Sulphate, Mercuric

**Mercury Phenate Schadeck-Merck** (10)

(Mercuric Carbolate, Phenylate, or Phenolate; Phenol-mercury).—Hg(C<sub>6</sub>H<sub>5</sub>O)<sub>2</sub>+H<sub>2</sub>O.—Grayish-wh. to reddish-gray powd.—Contains abt. 61.5% Hg.—*Sol.* E., hot A., A.+E., glacial acetic acid.—Antisyph.; Alter.; Antiseph.—*Uses:* Syph., particularly in secondary syph., & after previous treatment with inunctions.—*Dose*  $\frac{1}{2}$ - $\frac{1}{2}$  grain (0.02-0.03 Gm.); children,  $\frac{1}{15}$ - $\frac{1}{12}$  grain (0.004-0.005 Gm.).—*Caut.* Not "Hydrargyrum Diphenylatum," the very poisonous Mercury diphenyl (which see).

**Mercury Phenolate or Phenylate.**—see Mercury Phenate

**Mercury-phenyl.**—see Mercury Diphenyl

**Mercury Phosphate Merck.**—Mercuric (5)

HgHPO<sub>4</sub>.—Heavy, wh. to yellowish powd.—*Sol.*, acids.—*Uses:* Antisyph.—*Dose*  $\frac{1}{6}$ -1 grain (0.01-0.06 Gm.).

**Mercury Phosphate Merck.**—Mercurous (6)

Hg<sub>2</sub>HPO<sub>4</sub>+ $\frac{1}{2}$ H<sub>2</sub>O.—Heavy, wh. powd.—*Sol.*, nitric acid; insol. W., A., & phosphoric acid.—*Uses, Doses, &c.:* As of mercuric phosphate.

**Mercury-potassium Nitroparaphenolsulphonate.**—see Phenegol

**Mercury Protoiodide.**—see Mercury Iodide, Yellow

**Mercury Resorcinolacetate Merck** (12)

(Resorcinol-mercury Acetate).—Yellow, cryst. powd.—69% mercury.—*Sol.*, solut. potass. hydrox., hydrochloric acid, & hot glac. acetic acid; insol. W., A.—Antisyphilitic.—*Dose:* Recom. for hypoderm. use: 3  $\text{m}$  (0.2 Cc.) of a solut. of 85 grains (5.6 Gm.) of the salt in 85 grains (5.6 Gm.) of liquid paraffin, & 30 grains (2 Gm.) anhydrous lanum, twice weekly, the mixture being warmed to 25° C. before use.

**Mercury Rhodanide.**—see Mercury Sulphocyanate

**Mercury Salicylarsenate.**—see Enesol

**Mercury Salicylate Merck** (5)

(Secondary [or Basic] Mercuric Salicylate).—C<sub>6</sub>H<sub>4</sub>(COO)<sub>2</sub>Hg.—Wh. powd.—Abt. 59% mercury.—*Sol.*, in solut. of sodium chloride, dilute alkalis; insol. W., A.—Antisyph.; Antigonorr.; Alter., &c.—*Uses:* Extern., Chancre, gonorr., & venere. affect.; 1% powd. or oint.; inj. in ure-

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



thin (1:300 W. w. a little nausea), 15 ml (1 Ce) being injected every 2 to 3 d.—Reported cas. borne by the stomach, & to produce no salivation.—*Dose*  $1\frac{1}{4}$  grain (0.02 Gm.)—*Max. D.* 1 grain (0.06 Gm.) per day.

*Note.*—This article is prepared & purified specially for hypodermic use; it may, however, be used for other purposes as well.

**Mercury Santoninate Merck** (25)  
(Mercurous Santoninate).— $\text{Hg}_2(\text{C}_{15}\text{H}_{19}\text{O}_4)_2$ .—Wh. powd.—*Sol.*, sl. A.

**Mercury Sesquiodide Merck** (20)  
 $\text{Hg}_2\text{I}_2$ .—Yellow powd. Decomp. by W. & A.

*Mercury, Soluble, Hahnemann's.*—see **Mercury Oxide Black**

*Mercury Sozoiodolate.*—see **Sozoiodole-Mercury**

**Mercury Stearate Merck** (5)  
(Mercuric Stearate).—Yellowish-wh. gran. powd.—*Sol.*, v. sl. A., & fatty oils.

*Mercury Subnitrate.*—see **Mercury Nitrate, Mercurous, Basic**

**Mercury Subsulphate Merck** (2)  
(Basic Mercuric Sulphate; Turpeth Mineral; Oxymercuric Sulphate).— $\text{HgSO}_4 \cdot 2\text{HgO}$ .—Heavy lemon-yellow powd.; odorl.; alm. tastel.—*Sol.*, acids; partially in W.—*Alter.*; Emetic; Antiseptic.—*Dose*  $1\frac{1}{2}$ – $1\frac{3}{4}$  grain (0.015–0.03 Gm.) several t. p. d. in pill or powder as an alterative; as emet.,  $1\frac{1}{2}$ –3 grains (0.1–0.2 Gm.).—*Max. D.*  $\frac{3}{4}$  grain (0.05 Gm.) single; 3 grains (0.2 Gm.) p. day.

**Mercury Succinate Merck** (18)  
(Mercuric Succinate).— $\text{Hg}(\text{C}_4\text{H}_4\text{O}_4)_2$ .—Wh. cryst.—*Sol.*, solut. of sodium chloride.

**Mercury Succinimide Merck** (30)  
(Mercuric Succinimide; Mercury [or Mercuric] Imidosuccinate).— $\text{Hg}(\text{C}_3\text{H}_4[\text{CO}]_2\text{N})_2$ .—Wh., cryst. powd.—*Sol.* 25 W. w. aid of heat, 50–75 cold W.—*Antisyph.*; *Alter.*; *Antisep.*—*Uses.*: Hypoderm. in aqu. solut. Said to be free from disagre. local & secondary effects.—*Dose*  $1\frac{1}{5}$ – $1\frac{1}{3}$  grain (0.012–0.02 Gm.) hypoderm.

*Mercury Sulphate, Basic.*—see **Mercury Subsulphate**

**Mercury Sulphate Merck.—Mercuric** (1)  
(Normal or Neutral Mercuric Sulphate; Mercury Persulphate or Bisulphate).— $\text{HgSO}_4$ .—Wh., cryst. powd.—*Sol.*, hot dil.  $\text{H}_2\text{SO}_4$ ; decomp. by warm W.—*Uses.*: In chemical industry for making corros. sublim. & calomel; mixed w. sod. chloride for extracting gold & silver fr. roasted pyrites; also mixed with potassium bisulphate for filling galvanic batteries.—*Max. D.*  $\frac{1}{3}$  grain (0.02 Gm.) single;  $\frac{3}{4}$  grain (0.05 Gm.) daily.

**Mercury Sulphate Merck.—Mercurous** (3)  
(Normal Mercurous Sulphate).— $\text{Hg}_2\text{SO}_4$ .—Wh., cryst. powd.; turns gray on expos. to light.—

*Sol.*, dil. nitric acid; sl. W.—*Uses.*: In electro-techn. for making normal elements.

*Mercury Sulphate, Normal.*—see **Mercury Sulphate, Mercurous**

**Mercury Sulphide Black Merck** (1)  
(Black Mercuric Sulphide; Ethiops Mineral).—Mercuric sulphide containing uncombined mercury & free sulphur.—Black powd.; once supposed to be mercurous sulphide.—*Alter.*: Anthelm.—*Uses.*: Obsolete remedy for scrof. & worms.—*Techn.*, as pigment for horn, horn combs, &c.—*Dose* 3–8–15 grains (0.2–0.5–1 Gm.).

**Mercury Sulphide Red Merck.—Powder, or lumps** (2)  
(Mercuric Sulphide; Artificial Cinnabar; Red Mercuric Sulphuret; Vermilion).— $\text{HgS}$ .—Fine, bright, scarlet powd., or lumps.—*Insol.* W., A., & hydrochloric acid.—*Sinag.* & *Alter.*—*Uses.*: Mostly techn. for coloring wafers, sealing wax, & combined with ferrous sulphate for marking linen; also in manuf. of fancy colored papers. Somet. used by fumigation in syph. cases where immed. effects are required.—*Dose* 30 grains (2 Gm.) on red-hot iron & inhale fumes.

**Mercury Sulphocyanate Merck** (5)  
(Mercuric Sulphocyanide or Rhodanide).— $\text{Hg}(\text{SCN})_2$ .—Wh. powd.—*Sol.* A., & in solut. chlorides & potass. sulphocyanate; sl. in W.—*Uses.*: Pharaoh's serpents, & in photography.

*Mercury Sulphocyanide.*—see **Mercury Sulphocyanate**

*Mercury Sulphuret, Red.*—see **Mercury Sulphide, Red**

**Mercury Tannate Merck** (4)  
(Mercurous Tannate).—Compos. variable, but usually  $2\frac{1}{2}\text{Hg}_2 \cdot 3(\text{C}_{14}\text{H}_9\text{O}_9) \cdot \text{OH}$ .—Greenish-brown powd.; about 50% mercury.—*Insol.* in usual solvents.—*Antisyph.*—*Dose* 1–2 grains (0.06–0.12 Gm.) in pills or in wafers.

**Mercury Tartrate Merck.—Mercurous** (7)  
 $\text{Hg}_2\text{C}_4\text{H}_4\text{O}_6$ .—Yellowish, cryst. powd.—*Insol.* W., & acids.

**Mercury Thymolacetate Merck** (10)  
(Mercuric Thymolacetate).— $\text{Hg}(\text{CH}_3\text{COO})_2 \cdot \text{Hg}(\text{CH}_3\text{COO} \cdot \text{C}_{10}\text{H}_{15}\text{O})$ .—Colorl. powd.—*Insol.* W.—*Antisyph.*; *Antituberc.*; *Alter.*—*Uses.*: Tuberculosis, syph., scrof., &c., by intramusc. inject., us'y into gluteal muscles.—*Dose*  $1\frac{1}{2}$  grains (0.1 Gm.), every 3–5 days in liq. paraffin or glycerin. Cocaine may be added.

**Mercury Thymolate Merck** (15)  
(Mercuric Thymolate).—Basic salt of variable comp., but usually  $\text{HgC}_{10}\text{H}_{13}\text{O}_2 \cdot \text{OH}$ .—Reddish-yellow powd.—*Insol.* W.—*Antisyph.*—*Uses.*: As of mercury thymolacetate; the thymolate is better, however, being more stable.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface, p. v*)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Mercury Thymolnitrate Merck** (15)  
(Mercuric Thymolnitrate).—Wh. to reddish-wh. amorph. powd.—Insol. W.—Antisyphilitic.—*Uses*: As of mercury thymolacetate.

**Mercury Thymolsalicylate Merck** (20)  
(Mercuric Thymolsalicylate).—Wh. to reddish powd.; darkens on exposure.—Insol. W.—*Uses*: As of mercury thymolacetate.—*Caut.* Keep fr. light.

**Mercury Thymolsulphate Merck** (20)  
(Mercuric Thymolsulphate).—Wh. to reddish powd.—Insol. W.—Antisyphilitic.

**Mercury Tribromphenolacetate Merck** (85)  
(Mercuric Tribromphenolacetate).—Yellow, microcryst. powd.—About 30% mercury.—Insol. W.—Sp. Gr. 1.59.—Antisyph.; Antisept., &c.—Hypoderm. in syph., dis. of the joints, scrof. & tuberculosis.—*Dose* 8 m (0.5 Gc.) of a mixt. of 100 grains (6.5 Gm.) mercury tribromphenolacetate, & liquid paraffin 4½ fl. dr. (18 Cc.) once a week.

**Mercury Urate Merck** (35)  
(Mercuric Urate).— $\text{HgC}_2\text{H}_2\text{N}_4\text{O}_3$ .—Yellowish powd.—Insol. W.

**Mercury-urea Chloride.**—see **Mercury Bichloride, Carbamidated**

**Mercury Valerate Merck** (20)  
(Mercurous Valerate).— $\text{Hg}_2(\text{C}_5\text{H}_9\text{O}_2)_2$ .—Wh., cryst. powd.—Insol. W.

**Mercury & Ammonium Bichloride Merck** (4)  
(Mercuric Diammonium Chloride; Fusible White Precipitate; Alembroth Salt; Sal Sapientie).— $\text{HgCl}_2 \cdot (\text{NH}_4\text{Cl})_2 + \text{H}_2\text{O}$ .—Wh. cryst., like amm. chloride.—Sol. W.—Antisept.; Alter.—*Uses*: Hypoderm. in syph.; also pharm.—*Techn.*, in gilding.—*Dose* ⅓ grain (0.02 Gm.) in 8 m (0.5 Cc.) W.—*Appl.*, on cotton, gauze, &c.

**Mercury & Ammonium Chloride.**—see **Mercury, Ammoniated**

**Mercury & Ammonium Sulphate Merck** (4)  
(Mercuric-ammonium Sulphate).—Wh., gran. powd.—Sol., acids; decomp. by much water.

**Mercury & Antimony Sulphide Merck** (3)  
(Ethiops Antimonialis).—Mixt. of black mercury sulphide & gray antimony sulphide.—Black powd.—Insol. W., & dil. acids.—*Uses*: Scrofula.—*Dose* 2–4 grains (0.12–0.25 Gm.).

**Mercury & Barium Bromide Merck** (25)  
(Mercuric Barium Bromide).— $\text{HgBr}_2 \cdot \text{BaBr}_2$ .—Colorl. cryst.—Sol., eas. W.

**Mercury & Barium Iodide Merck** (30)  
(Mercuric Barium Iodide).— $\text{HgI}_2 \cdot \text{BaI}_2$ .—Yellowish cryst.—Sol., sl. W., & A.

**Mercury & Barium Iodide Merck.**—Solution (20)  
(Rohrbach's Solution).—Conc. solut. of mercury & barium iodide.—Sp. Gr. 3.5.—*Uses*: Separating minerals of different sp. gr.

**Mercury & Copper Iodide Merck** (25)  
(Mercuric-cuprous Iodide).— $2\text{HgI}_2 \cdot \text{Cu}_2\text{I}_2$ .—Red, cryst. powd.—Insol. W., A.

**Mercury & Lithium Iodide Merck** (35)  
(Mercuric Lithium Iodide).— $\text{HgI}_2 \cdot 2\text{LiI}$ .—Red, gran. powd.—Sol. A., W.—Antisyph.; Antilitic; Alter.—*Uses*: Reccom. in gravel, espec. complicated w. syph.

**Mercury & Morphine Oleate**  
20% yellow mercuric oxide & 5% morphine in oleic acid.—Sol. E., & oleic acid.—Alter.; Antisept.; Anod.—*Uses*: As of the official oleate of mercury, espec. in pain.

**Mercury & Potassium Cyanide Merck.**—Cryst. (6)  
(Mercuric Potassium Cyanide).— $\text{Hg(CN)}_2 \cdot 2\text{KCN}$ .—Colorl. cryst.—Sol. W.—Antiseptic.—*Uses*: Techn., in manuf. of mirrors to prevent the silver coating from becoming yellow.

**Mercury & Potassium Hyposulphite.**—see **Mercury & Potassium Thiosulphate**

**Mercury & Potassium Iodide Merck** (11)  
(Mercuric Potassium Iodide).— $\text{HgI}_2 \cdot 2\text{KI}$ .—Yellow cryst.—Sol. W.—*Uses*: Alkaloidal reagent.—*Solut.*—N. F.

(Channing's Solution).—Fr. 2.5 Gm. red mercury iodide, 2 Gm. potass. iodide, & 250 Cc. W.—*Dose* 3 m (0.2 Cc.).

**Mercury & Potassium Iodide Merck.**—Reagent 20  
 $\text{HgI}_2 \cdot 2\text{KI}$ .—Sulphur-yellow, cryst. pieces; deliquesce. in moist air.—*Test*: (Solut.) 5 Gm. + 10 Cc.  $\text{H}_2\text{O}$ —clearly & compl. solub.; solut. clear even on add. 80 Cc.  $\text{H}_2\text{O}$ .—*Uses*: Alkaloidal reagent; in Thoulet's solut. for separ. minerals; detect. alkali hydroxides in alkali carbonates.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Mercury & Potassium Nitroparaphenolsulphonate.**—see **Phenegol**

**Mercury & Potassium Tartrate Merck** (5)  
(Mercurous Potassium Tartrate).— $\text{Hg}_2\text{K}_4\text{H}_4\text{O}_6$ .—Wh., cryst. powd.—Insol. W., A.

**Mercury & Potassium Thiosulphate Merck** (15)  
(Mercuric Potassium Thiosulphate or "Hypo-sulphite").— $3\text{Hg(S}_2\text{O}_3)_2 \cdot 5\text{K}_2\text{S}_2\text{O}_8$ .—Colorl. cryst.—31.4% mercury.—Sol. W.—Antisyph.—*Dose* ⅓–½ grain (0.01–0.03 Gm.), hypoderm.

**Mercury & Thallium Iodide Merck** (110)  
(Mercuric Thallium Iodide).— $\text{HgI}_2 \cdot \text{THI}$ .—Reddish-yellow, gran. powd.—Sol., sl. W.

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiaol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Mercury & Zinc Acetate Merck** (12)  
(Mercuric Zinc Acetate).—Wh. powd.—*Sol.* W.  
—Antisept.; Antisyph.

**Mercury & Zinc Cyanide Lister-Dunstan-Merck** (8)  
(Mercuric Zinc Cyanide).—Not a chemical compound; mixt. of zinc cyanide w. varying quantities of mercury cyanide. Wh. powd.; mercury cyanide may be removed fr. it by treatment w. W.—Antiseptic.—*Uses*: Extern., dust-powd in surgery; also for impregnating dressings.

**Mercury with Chalk Merck.**—*U. S. P.* (1)  
Mixt. of mercury, honey & chalk.—38% mercury.—Antisyph.; Hepatic Stim.; Oxytocic; Antisept.; Anthelm.—*Uses*: Diarr. & dysent., worms, amenorr., tuberculosis, & syph.—*Dose* 3–10 grains (0.2–0.6 Gm.) several t. p. d.

**Mergal**  
(Mercury Chololate).— $\text{Hg}(\text{C}_4\text{H}_7\text{O}_2)_2$ .—Yellowish powd.—*Sol.*, sl. in solut. NaCl; alm. insol. W.—Antisyphil.—*Dose*  $\frac{3}{4}$  grain (0.05 Gm.) 3–5 t. p. d.

**Merkel's Chromic-Platinum Chloride**  
Solut. 1 Gm. chromic acid & 1 Gm. platinum chloride in 500 Gm. W.—*Uses*: Fixing specimens.

**Merkel's Indigocarmine-Oxalic Acid**  
Consists of two soluts.—(1) sat. solut. indigocarmine in 3–4% aq. oxalic-acid solut.; (2) 1 Gm. carmine, 1 Gm. ammonia, & 50–100 Cc. W.—*Uses*: Staining specimens of ossification.

**Mescal Buttons.**—see **Anhalonium**

**Mescaline Sulphate Merck** (7500)  
( $\text{C}_{11}\text{H}_{17}\text{NO}_3$ ) $_2 \cdot \text{H}_2\text{SO}_4 + 2\text{H}_2\text{O}$ .—Sulphate of alkaloid fr. Anhalonium Lewinii (Mescal buttons).—Colorl. cryst.—*Sol.*, eas. in hot, but diffic. in cold, W.—The toxic symptoms of Mescal-buttons poisoning, as well as the remarkably beautiful visual color hallucinations, are ascribed to this alkaloid.

**Mesityl Oxide Merck** (65)  
(Methylisobutenylketone; Isopropylideneacetone).—By acetone by sulphuric acid.— $\text{C}_6\text{H}_{10}\text{O}$ , or,  $(\text{CH}_3)_2\text{C}:\text{CH}.\text{CO}.\text{CH}_3$ .—Colorl., oily liq.; peppermint odor.—*Sp. Gr.* 0.8612 at 15° C.—*Sol.* A., E.—*Boil.* 129–130° C.

**Mesitylene Merck** (90)  
(Trimethylbenzene; or Trimethylbenzol [symmetric]).—By distil. acetone w. sulphuric acid.— $\text{C}_9\text{H}_{12}$ , or,  $\text{C}_6\text{H}_3(\text{CH}_3)_3$  [1:3:5].—Colorl., oily liq.; peculiar odor.—*Sol.* A., E., benzene.—*Sp. Gr.* 0.869 at 10° C.—*Boil.* 164° C.

**Mesotan** (10)  
(Methoxymethylester of Salicylic Acid; Ericin).— $\text{C}_6\text{H}_4(\text{OH}).\text{COOCH}_2.\text{OCH}_3$ .—Yellow liquid.—75% salicylic acid.—*Sol.* A., E., fixed oils, B., C.; v. sl. W.—*Sp. Gr.* 1.2 at 15° C.—Local Antirheumatic.—*Uses*: Gout, rheumatism, &c.—

*Appl.*, 1 fl. dr. (4 Cc.) of a mixture of equal parts mesotan & olive or other bland oil.

**Metazalythra.**—see **Alloxan**

**Meta-aminotoluidine** (or, -ol).—see **Toluidine, Meta-**

**Metabenzaminocarbazide.**—see **Cryogenine**

**Metacitone.**—see **Diethylketone**

**Metachloral.**—see **Chloral, Meta-**

**Metachloronitrobenzene** (or, -zol).—see **Chloronitrobenzene, Meta-**

**Metacresolol.**—see **Cresolol, Meta-**

**Metacresolanytol.**—see **Metasol**

**Metacymol.**—see **Methylpropylbenzene, Meta-**

**Metadaminobenzene** (or, -zol).—see **Phenylene-diamine, Meta-**

**Metadiiodaniline.**—see **Diiodaniline**

**Metadimethylbenzene** (or, -zol).—see **Xylene, Meta-**

**Metadinitrobenzene.**—see **Dinitrobenzene, Meta-**

**Metadioxyazobenzene** (or, -zol).—see **Sudan Yellow G**

**Metadioxybenzene** (or, -zol).—see **Resorcinol**

**Metal Fusible D'Arcet-Merck** (10)  
Alloy of bismuth (50%), lead (25%) & tin (25%).—Whitish-gray metal.—*Melt.*, abt. 94° C.—*Uses*: Techn.

**do. Rose-Merck** (10)  
Bismuth (50 pts.), lead (28.1 pts.) & tin (24.1 pts.).—Whitish-gray metal.—*Melt.*, abt. 95° C.—*Uses*: Techn.

**do. Wood-Merck** (10)  
Bismuth (50%), lead (25%), tin (12.5%) & cadmium (12.5%).—Whitish-gray metal.—*Melt.*, abt. 70° C.

**Metaldehyde Merck** (30)  
( $\text{C}_2\text{H}_4\text{O}$ ) $_3$ .—Wh. prisms.—*Sol.* C., B.; sl. in A., E.—*Subl.* 112–115° C.—*Sed.*; Hygm.—*Uses*: Insom. & hyst.—*Dose* 2–8 grains (0.12–0.5 Gm.).

**Metamethylphenol.**—see **Cresol, Meta-**

**Metamethylpropylbenzene** (or, -zol).—see **Methylpropylbenzene, Meta-**

**Metamidoparaoxybenzoic-acid Methyl Ester.**—see **Orthoform, New**

**Metamine Blue.**—see **Phenyl Blue**

**Metanitraniline.**—see **Nitraniline, Meta-**

**Metanitrobenzaldehyde.**—see **Nitrobenzaldehyde, Meta-**

**Metanitroparatoluidine Merck** (75)  
 $\text{C}_6\text{H}_3(\text{CH}_3)(\text{NO}_2)\text{NH}_2$  [1:3:4].—Red need. or prisms.—*Sol.* A.—*Melt.* 114° C.

**Metanitrophenol.**—see **Nitrophenol, Meta-**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Metanitrotoluene* (or, -ol).—see **Nitrotoluene, Meta-**

*Metaoxydiphenylamine*.—see **Oxydiphenylamine, Meta-**

*Metaoxytoluene* (or, -ol).—see **Cresol, Meta-**

*Metaphenylenediamine*.—see **Phenylenediamine, Meta-**

*Metaphenylenediamine Paper*.—see **Griess's Paper, Yellow**

### **Metasol**

(Metacresolanytol).—40% metacresol & 60% anytin.

*Metastyrene* (or, -ol).—see **Styrene, Meta-**

*Metatoluylenediamine*.—see **Toluylenediamine**

*Metatolylhydrazine Carbamate*.—see **Maretin**

*Metaxylene* (or, -ol).—see **Xylene, Meta-**

*Metaxyleneol*.—see **Xylenol, Meta-**

*Metaxyleneolalol*.—see **Xylenol (Meta-) Salicylate**

*Metaxylidine, Ordinary*.—see **Xylidine (Meta-), Asymmetric**

### **Methacetin Merck** (20)

(Para-acetanisidin; Paraoxymethylacetanilide; Acetanisidin).—Homologue of phenacetin.— $C_9H_{11}NO_2$ , or,  $C_6H_4(O.CH_3).NH.C_2H_5O$ .—Wh., micro-cryst. powd.; fbl., bitter taste.—*Sol.* A., acetone, C., dil. acids, alkalies; sl. W.—*Melt.* 127° C.—Antipyretic; Antineural.; Antisep.; Antiferment.—*Uses*: Pneumonia, typhoid fever, phth., scarlet fever, rheum., neural., &c.—*Doses*: Adults, 4-8 grains (0.25-0.5 Gm.). Children 2-5 grains (0.12-0.3 Gm.).

### **Methaform** (12)

(Dimethylcarbinolchloroform).—White, acic. cryst.; sl. camphor. taste & odor.—*Sol.*, eas. A., C., E.; sl. W.—Hypnot.; Analges.; Antisep.—*Dose* 3-10 grains (0.2-0.6 Gm.).

*Methanamide*.—see **Formamide**

*Methanethiomethane*.—see **Methyl Sulphide**

### **Methemoglobin Merck** (750)

Abnormal blood pigment.—Conversion product of & isomeric with oxyhemoglobin.—Brownish-red cryst.—*Sol.* W.

*Methenyl Tribromide*.—see **Bromoform**

*Methoxyacetphenetidol*.—see **Kryofine**

### **Methoxycaine Merck** (400)

$C_9H_{12}N_4O_3$ , or,  $C_8H_{10}(OCH_3)N_4O_2$ .—Wh., bulky powd.—*Melt.* 177° C.—*Sol.*, sl. W.; more readily in dil. A.—Antineural.; Anesth.—*Uses*: Intern., headache, neural.—*Extern.*, hypoderm., 15 M (I Ce.) of 2% solut. for local anesth.—*Dose* 4 grains (0.25 Gm.).

### **Methyl Acetate Merck** (5)

$C_3H_7O_2$ , or,  $CH_3.CO.OCH_3$ .—Colorl., fragrant liq.—*Sp. Gr.* 0.964 at 15° C.—*Sol.* W., all prop. A., E.—*Boil.* 56° C.

### **Methyl Acetoacetate Merck** (40)

Fr. methyl acetate by metallic sodium.— $C_5H_8O_3$ , or,  $CH_3.CO.CH_2.CO.OCH_3$ .—Colorl., transp. liq.—*Sol.* A., E.—*Sp. Gr.* 1.037 at 9° C.—*Boil.* 170° C.

### **Methyl Acetylsalicylate Merck** (12)

(Methyl Ester of Acetylsalicylic Acid; Methylrhodin; Methyl-aspirin).— $O.CO.CH_3.C_6H_4.CO.OCH_3$ .—Colorl. cryst.—*Sol.* A., E., oils, G.; insol. W.—*Melt.* 54° C.—Antineuralgic.—*Dose* 8-15 grains (0.5-1 Gm.); 75-120 grains (5-8 Gm.) p. d.

### **Methyl Anisate Merck** (30)

$C_6H_4.OCH_3.CO.OCH_3$ .—Colorl. scales.—*Sol.* A.—*Melt.* 45-46° C.—*Boil.* 255° C.

### **Methyl Benzoate Merck** (5)

(Methyl Ester of Benzoic Acid; Essence Niobé).—By distill'g wood-spirit, benzoic acid & sulphuric acid together.— $C_8H_8O_2$ , or,  $C_6H_5.CO.OCH_3$ .—Colorl., transp. liq.—*Sp. Gr.* 1.088 at 17° C.—*Sol.* A., E.—*Boil.* 199° C.—*Uses*: In perfumery, under the name "Peau d'Espagne."

### **Methyl Betanaphtholate Merck** (20)

(Nerolin; Yara-Yara; Methyl Ester of Betanaphthol).—Fr. betanaphthol by boil. w. methyl ale. & zinc chloride.— $C_{11}H_{10}O$ , or,  $CH_3O.C_{10}H_7$ .—Wh., cryst. scales.—*Sol.* E.—*Melt.* 72° C.—*Boil.* 274° C.—*Uses*: Perfumery.

### **Methyl Bichloride Richardson-Merck** (25)

Mixt. of 1 vol. methyl alcohol & 4 vols. chloroform.—Colorl. liq.—*Uses*: Anesthesia by inhal.—*Caut.* Keep fr. light.—*N. B.*: Do not confound this with *Methylene Bichloride* (which see).

### **Methyl Blue Merck** (20)

(Brilliant Cotton, or Greenish, Blue; "Methyl Blue M B I for cotton").—The sodium salt of triphenylpararosanilinetrisulphonic acid.— $C_{18}H_{12}N_6S_3O_{10}Na_3$ , or,  $C(OH) \cdot ([C_6H_4 \cdot 4]NH.C_6H_4 \cdot SO_3Na)_3$ .—Dark-blue powd.—*Sol.* W. w. blue color.—Antiseptic.—*Uses*: Reccom. as a local appl. in diptheria, mixt. of 2 pts. methyl blue & 98 pts. sugar.—*Techn.*, as a coloring, & as dye for cotton & silk.—*Caut.* Do not confound this w. *Methylene Blue*.—*Tests*: Sodium hydroxide w. *methyl blue* changes color to reddish-brown; w. *methylene blue*, changes color to violet.

### **Methyl Bromide Merck** (35)

(Bromomethane).—Fr. wood-spirit, by bromine w. phosphorus.— $CH_3Br$ .—Colorl., transp. liq.; burning taste; chloroform-like odor.—*Sp. Gr.* 1.732 at 0° C.—*Misc.* A., E., C., & carbon disulphide.—*Boil.* 4.5° C.

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Methyl Butyrate Merck** (6)  
(Methyl Ester of Butyric Acid).—Fr. methyl alcohol, by distil. w. sulphuric acid & a normal butyrate— $C_4H_8O_2$ , or,  $CH_3(CH_2)_2COOCH_3$ .—Colorl., mobile liq.—Sp. Gr. 0.919 at 0° C.—Sol. A.—Boil. 102° C.

**Methyl Butyrate (Iso-) Merck** (45)  
(Methyl Ester of Isobutyric Acid).—By distil. methyl alcohol w. isobutyric & sulphuric acids.— $C_4H_8O_2$ , or,  $(CH_3)_2CH.CO_2CH_3$ .—Colorl., mobile liq.—Sol. A.—Sp. Gr. 0.911 at 0° C.—Boil. 92° C.

**Methyl Carbonate Merck** (75)  
(Dimethyl Carbonate).—Fr. methyl chlorocarbonate, by boil. w. lead oxide.— $C_3H_6O_3$ , or,  $(CH_3)_2CO_2$ .—Colorl. liq.—Sp. Gr. 1.069 at 22° C.—Sol. A., E.—Melt. 0.5° C.—Boil. 91° C.

**Methyl Chloracetate Merck** (30)  
Fr. solut. chloroacetic acid in methyl alcohol. w. HCl gas.— $C_3H_5O_2Cl$ , or,  $CH_3Cl.CO_2CH_3$ .—Colorl., transp. liq.—Sol. A.—Sp. Gr. 1.22 at 15° C.—Boil. 130° C.

**Methyl Chloride**  
(Chloromethane).—By distil. methyl alcohol, NaCl, & sulphuric acid.— $CH_3Cl$ .—Gas of an ethereal odor compressed to liquid in cylinders.—Local Anesthetic.—Uses: Severe neural, pruritus, & spinal pains. Also techn.

**Methyl Chlorocarbonate** (45)  
(Methyl Ester of Chloroformic, or Chlorocarbonic, Acid; Methyl Chloroformate).—Fr. gaseous methyl formate, by chlorine.— $CH_2Cl_2O$ , or,  $CH_2Cl.CO_2$ .—Colorl., oily liq.—Sp. Gr. 1.236 at 15° C.—Sol. C., E.—Boil. 71° C.

**Methyl Chloroformate.**—see **Methyl Chlorocarbonate**

**Methyl Cinnamate Merck** (60)  
(Methyl Cinnamate; Methyl Ester of Cinnamic Acid).—Fr. methyl alc., by distil. w. sodium cinnamate & sulph. acid.— $C_{10}H_{10}O_2$ , or,  $C_6H_5-CH:CH.CO_2CH_3$ .—Colorl. cryst.—Sol. A., E.—Melt. 34° C.—Boil. 263° C.—Uses: In confectionery because of its strawberry-like odor; & in perfum. because of its power to fix other odors.

**Methyl Cyanide Merck** (65)  
(Acetonitrile).—Fr. acetamide w. glacial acetic acid, by heat.— $C_2H_3N$ , or,  $CH_3.CN$ .—Colorl., limpid liq.; aromatic odor.—Sp. Gr. 0.789 at 15° C.—Sol. W., A.—Boil. 81–83° C.

**Methyl Formate Merck** (10)  
(Methyl Ester of Formic Acid).—Fr. wood-spirit by distil. w. sodium formate & hydrochloric acid.— $C_2H_4O_2$ , or,  $CH_3.CO_2H$ .—Colorl. liq.; agre. odor.—Sp. Gr. 0.9797 at 15° C.—Sol. A.—Boil., about 33° C.

**Methyl Gallate Merck** (50)  
(Methyl Ester of Gallic Acid; Galliein).—By

heating methyl Alcohol solut. gallic or tannic acid w. hydrochl. acid gas or conc. sulphuric acid.— $C_8H_8O_5$ , or,  $C_6H_2(OH)_3.CO_2CH_3$ .—Rhombic prisms. Sol. W., ethyl & methyl A., E.—Melt. 192° C.—Antientarrhal.—Uses: Extern., cure of conjunctiva & eye dis.—Appl., powd., by camel's-hair brush.—See also Galliein.

**Methyl Green Merck** (8)  
(Paris, Light, or Double, Green).—Zinc-chloride double salt of chloromethylhexamethylpararosaniline hydrochloride.—Fr. methyl chloride w. methyl violet, followed by zinc chloride.— $C_{26}H_{30}N_3Cl_2 + ZnCl_2$ , or,  $C(C_6H_4.N[CH_3]_2)_3.CH_3Cl_2 + ZnCl_2$ .—Green cryst. or powd.—Sol. W. w. bluish-green color.—Uses: Green dye f. silk; also as stain.

**Methyl Hexane.**—see **Heptane**

**Methyl Hydrate** or **Hydride.**—see **Alcohol, Methylic**

**Methyl Iodide Merck** (18)  
(Iodomethane).—React.-prod., methyl alc. w. iodine & phosphorus.— $CH_3I$ .—Colorl.; transp. liq.; turns brown on expos. to light.—Sp. Gr. 2.279 at 15° C.—Sol. A.—Boil. 42° C.—Vesicant.—Uses: Inst. of cantharides; also in microscopy, because of its high index of refraction (1.743), as an imbedding material for examining diatoms.—Caut. Keep from light.

**Methyl Isobutyrate.**—see **Methyl Butyrate, Iso-**

**Methyl Lactate Merck** (35)  
(Methyl Ester of Lactic Acid).—By distil. methyl alc. w. sodium lactate & sulphuric acid.— $C_4H_8O_3$ , or,  $CH_3.CHOH.CO_2CH_3$ .—Colorl., transp. liq.—Sol. A.—Sp. Gr. 1.094 at 15° C.—Decomp. by W.—Boil. 145° C.

**Methyl Malonate Merck** (20)  
(Methyl Ester of Malonic Acid).—Fr. silver malonate w. methyl iodide.— $C_5H_8O_4$ , or,  $CH_2:(CO_2CH_3)_2$ .—Colorl. liq.—Sp. Gr. 1.16 at 15° C.—Sol., oils, A., E.—Boil. 181° C.

**Methyl Mustard Oil.**—see **Methyl Thiocarbimide**

**Methyl Orange Merck** (14)  
(Dimethylaniline Orange; Gold Orange; Tropæoline D; Orange III; Helianthine; Poirrier's Orange 3 P).—Sod. (or amm.) dimethylaminoazobenzenesulphonate.— $C_{14}H_{14}N_2SO_3Na$ , or,  $(CH_3)_2N.C_6H_4.N:N.C_6H_4.SO_3Na$ .—Ochre-yellow powd.—Sol. W.—Uses: Dyes wool orange fr. an acid bath; indicator in alkalimetry.

**Methyl Orange Merck.—Reagent** (22)  
Sod. salt of paradiethylaminoazobenzenesulphonie Acid.— $(CH_3)_2N.C_6H_4.N:N.C_6H_4.SO_3Na$ .—Orange-yellow powd.—Sol., eas. W.—Indicator solut.: 0.1 Gm.+100 Cc.  $H_2O$ .—Test: (Sensitivity) 1 drop solut.+100 Cc.  $H_2O$  in Jena flask; add 1 drop decinorm. HCl—light-yellow should change to red; on further add. 1 drop decinorm. KOH, light-yellow color restored.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



—*Uses*: Indicator, especially w. mineral acids, alkalis, alkali carbonates & bicarbonates, morphine, & quinine. Not reddened by carbonic acid.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### Methyl Orange Paper

(Helianthine Paper; Tropæolin D. Paper).—Wh. paper, charged w. methyl orange.—*Uses*: Test for acids & alkalis (acids = red; alkalis = yellow).

### Methyl Oxalate Merck (11)

(Dimethyl Ester of Oxalic Acid).—Fr. dried oxalic acid w. boil. methyl alc.— $C_2H_6O_4$ , or,  $(CH_3)_2C_2O_4$ .—Colorl. cryst.—*Sol.* W., A., E.—*Melt.*  $54^\circ C$ .—*Boil.*  $163^\circ C$ .

### Methyl Propionate Merck (15)

(Methyl Ester of Propionic Acid).—Fr. methyl alc. by distil. w. sulphuric acid & a propionate. — $C_4H_8O_2$ , or,  $C_2H_5COOCH_3$ .—Colorl. liq.—*Sol.* A.—*Sp. Gr.* 0.937 at  $0^\circ C$ .—*Boil.*  $79.5^\circ C$ .

*Methyl Rhodanide*.—see *Methyl Sulphocyanate*

### Methyl Salicylate Merck (1)

(Methyl Ester of Salicylic Acid; Synthetic or Artificial Oil of Wintergreen [Gaultheria]).—Fr. methyl alc. by distil. w. salicylic & sulphuric acids.— $C_8H_8O_3$ , or,  $C_6H_4(OH).COOCH_3[1:2]$ .—Colorl., or sl'y yellowish, oily liq.; odor & taste of oil of gaultheria.—*Sol.* A.;  $CS_2$ ; glac. acet. acid; spar. W.—*Sp. Gr.* 1.183–1.188 at  $15^\circ C$ ; (1.180–1.185 at  $25^\circ C$ , U. S. P.).—*Boil.* 219–221° C.—*Antirheum.*; *Antisep.*—*Uses*: Chiefly in inflamm. artic. rheum. Also readily absorbed by the skin, and hence applied in quantities of 50–120  $\eta$  (3.3–8 Ce.) externally to parts affected twice daily, in subacute & chronic rheumatism. The evaporation of the remedy is prevented by applying an air-tight bandage; also in gonorr. rheum. & in acute gonorr.—*Dose* 5–10  $\eta$  (0.3–0.6 Ce.), grad. incr.—*Extern.*, in acute gonorr., inject (1:100 liq. petrolatum) 3 t. p. d. w. bismuth subnitrate.

### Methyl Sebacate Merck (45)

(Methyl Ester of Sebacic Acid; Methyl Sebacinat).— $C_{12}H_{22}O_4$ , or,  $C_8H_{16}(COOCH_3)_2$ .—Colorl. liq.; solidifies w. cold.—*Sol.* A.—*Melt.*  $38^\circ C$ .—*Sp. Gr.* 0.886 at  $15^\circ C$ .

### Methyl Sulphide Merck (100)

(Dimethyl Sulphide; Methanethiomethane).—Fr. solut. potass. sulphide in methyl alc. by methyl chloride.— $C_2H_6S$ , or,  $(CH_3)_2S$ .—Colorl. liq.; disagree. odor.—*Sp. Gr.* 0.845 at  $21^\circ C$ .—*Boil.*  $37.5^\circ C$ .—*Uses*: Solvent for anhydrous mineral salts.

### Methyl Sulphocyanate Merck (50)

(Methyl Rhodanide or Thiocyanate). Fr. KSCN w. alc. methylsulphate by distil.— $C_2H_3NS$ , or,

$CH_3SCN$ .—Colorl. liq.; onion odor.—*Sp. Gr.* 1.088 at  $0^\circ C$ .—*Sol.* A., E.; sl. W.—*Boil.*  $133^\circ C$ .

### Methyl Thiocarbimide Merck (250)

(Methyl Mustard Oil).—Fr. methyl sulphocyanate by heat.— $C_2H_3NS$ , or,  $CH_3.N:CS$ .—Wh. cryst.; strong horseradish odor.—*Sol.* A.—*Melt.*  $35^\circ C$ .—*Boil.*  $119^\circ C$ .

*Methyl Thiocyanate*.—see *Methyl Sulphocyanate*

### Methyl Valerate Merck (7)

(Methyl Valerianate).— $C_6H_{12}O_2$ , or,  $CH_3.C_4H_9COO$ .—Colorl. liq.; valerian odor.—*Sol.* A.—*Sp. Gr.* 0.900 at  $0^\circ C$ .—*Boil.*  $116.5^\circ C$ .

### Methyl Violet B Merck (7)

(Also 5B; 4B; 3B; 2B; B; B B [for intern. use.—Highest Purity]; B N; R; 2R; 3R)

Essentially mixt's of hydrochl's of pentamethylpararosaniline & hexamethylpararosaniline.—Metal., glistening lumps.—*Sol.* W., A.—*Uses*: Dyes silk & wool violet direct, cotton after mord. with tannin. Satur. alc. solut. for staining tubercle bacilli.—The "B B" highly pure grade may also be used for medicinal purposes.

### Methyl Violet 7 B

(Acid Violet).—Sodium salt of tetramethylparatolyltriamidoethoxytriphenylcarbinolsulphonic acid.—Dark-violet powd.—*Sol.* W., A.—*Uses*: Bacterial stain.

*Methylacetone*.—see *Methylethylketone*

*Methylacetylpyronone*.—see *Acid Dehydracetic*

*Methylacetyl*.—see *Acetone*

### Methylal Merck.—Pure (27)

(Methylenedimethyl Ester; Formal; Methylenedimethylate).—By distil. together methyl alc., W., sulphuric acid & manganese dioxide.— $C_2H_4O_2$ , or,  $CH_2(OCH_3)_2$ .—Colorl., volat. liq.; chlorof. odor; pungent taste.—*Sp. Gr.* 0.855 at  $15^\circ C$ .—*Sol.*, eas. W., A., oils.—*Boil.*  $42^\circ C$ .—*Anesth.*; Nerve Sed.; Hypn.; Antispas.; Anod.—*Uses*: Intern., delir. trem., strychnine poison., tet., gastric & intest. pain, & in insom.—*Dose* 8–15±75 grains (0.5–1.5 Gm.) at night, in W.; or syrup.—*Inj.*, for insom., 10% aq. solut., give 1 syringeful every 2 or 3 hours. As sedat.,  $1\frac{1}{2}$  grains (0.1 Gm.) every 2 or 3 hours.—*Appl.* 10% linim. or oint. as local anesth.

### do. Merck.—Commercial (10)

*Uses*: Techn., in perfumery for extracting odors, even those that are highly sensitive.

### Methylamine Merck (1500)

(Amidomethane).—Fr. methyl cyanurate, by distil. w. KOH & W.— $CNCH_3$ , or,  $CH_3NH_2$ .—Colorl. gas liquefied in tubes; strong ammonia odor; rapidly absorbed by W.—*Sol.* W.—*Boil.*, minus  $6^\circ C$ .

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Methylamine Merck.**—33% (60)  
Aqua. solut. methylamine.—Colorl. liq.—*Sol.* W., & A.

**Methylamine Hydrochloride Merck** (120)  
(Methylamine Hydrochloride).— $\text{CH}_3\text{NH}_2\text{HCl}$ .  
—Large, colorl., deliq. plate.—*Sol.* W., & A.  
—*Melt.* 222° C.—*Cast.* Keep dry, fr. air.

**Methylaniline Merck** (18)  
(Monomethylaniline).—React.-prod. methyl iodide w. aniline— $\text{C}_6\text{H}_5\text{N}$ , or,  $\text{C}_6\text{H}_5\text{N} \cdot \text{NHCH}_3$ .  
—Reddish-brown, oily liq.—*Boil.* 190–191° C.  
—*Sp. Gr.* 0.976 at 15° C.—*Sol.* E., C.

**Methylaspirin.**—see **Methyl Acetylsalicylate**

**Methylatropine Bromide.**—see **Atropine Methylbromide**

**Methylatropine Nitrate.**—see **Eumydrine**

**Methylbenzene** (or, *-sol.*)—see **Toluene**

**Methylbenzoylcegonine.**—see **Cocaine**

**Methylcinnamyl Ketone.**—see **Benzylideneacetone**

**Methyldiphenylamine Merck** (10)  
(Diphenylmethylaniline).—By methylating diphenylamine w. methyl iodide & heat.— $\text{C}_{12}\text{H}_{11}\text{N}$ , or,  $(\text{C}_6\text{H}_5)_2\text{N}(\text{CH}_3)$ .—Colorl. liq.—*Sol.* A., E.—*Sp. Gr.* 1.0476 at 20° C.—*Boil.* 282° C.—*Tests.* Violet color w. nitric acid.

**Methyldisodium Arsenate.**—see **Sodium Methylarsenate**

**Methylene Bichloride.**—see **Methylene Chloride**

**Methylene Blue Merck.**—Highest Purity, Medicinal (16)  
(Methylthionine, or Tetramethylthionine, Hydrochloride).—Purified dye-stuff, free fr. zinc chloride.— $\text{C}_{16}\text{H}_{18}\text{N}_2\text{S}_2\text{Cl}_4$ .—Dark-green, cryst. powd.—*Sol.*, eas. W.; less read. A.—Anod.; Antiper.; Antipyr.—*Uses:* Rheum., malaria, cystitis, pyelitis, carcinoma, black-water fever, diabetes, gonorr., & neuralgia.—*Dose* 2–4 grains (0.12–0.25 Gm.) in capsules.—*Inf.* 1 grain (0.06 Gm.) in aqu. solut.—*Max. D.* 15 grains (1 Gm.) single, or p. day.—*Appl.*, dusting powd. in blennorrhagic vaginitis & metritis; as enema (0.1–0.2:500–1000 W.) in dysentery; intramuscularly,  $1\frac{1}{2}$  grains (0.1 Gm.) in mania; also as diagnostic means of determining the degree of permeability of renal tissue by inject. of 15 ml (1 Ce.) of 5% solut.—During treatment w. methylene blue the urine acquires a green color. By-effects (*e.g.*, irritation of bladder) are removed or prevented by administering a pinch or so of powd. nutmegs.  
*Note.*—Long since established in use, & of unimpeachable quality, the U. S. P. now recognizes this preparation, which is free from arsenic & zinc.

do. **B (& BB) Merck** (12)  
(Hydrochloride or Zinc-chloride double salts of Tetramethylthionine).—Dark-blue or red-brown powd. w. bronze reflect.—*Sol.*, eas. W., w. blue

color; sl. A.—*Uses.* Techn., in manuf. of paper as substitute for ultramarine, dyeing cotton, & in cotton printing.—*Caution* Not for intern. use; for this purpose only the "Highest Purity, Medicinal" grade should be used!

**Methylene Blue BX Merck** (10)  
Commercial grade of methylene blue.—Dark-blue or reddish-brown powd.; bronze reflect.—*Sol.* W., A.—*Uses:* Dye f. cotton.—*Caution* Not for intern. use; for this purpose only the "Highest Purity, Medicinal" grade should be used!

**Methylene Bromide Merck** (140)  
(Dibromomethane).— $\text{CH}_2\text{Br}_2$ .—Colorl. to yellowish liq.—*Sol.* A., E.—*Sp. Gr.* 2.4985 at 15° C.—*Boil.* 98.5° C.

**Methylene Chloride Merck.**—Highest Purity (12)  
(Methylene Bichloride; Dichloromethane).—1 r. mixt. alc. & chlorof., by zinc & aqu. hydrochloric acid.— $\text{CH}_2\text{Cl}_2$ .—Colorl. liq.—*Sp. Gr.* 1.377 at 15° C.—*Sol.* A., E.—*Boil.* 40° C.—Anesthetic.—*Uses:* As spray to produce local anesthesia, partic. in dentistry.—*Caution* Use carefully. Dangerous as inhalant.—*N. B.*: Do not confound with the so-called "Methyl Bichloride Richardson" (which see).

**Methylenecreosote.**—see **Pneumin**

**Methylene Diacetate Merck** (5)  
(Oxymethylene Acetate; Formaldehyde Acetate).—Fr. silver acet. by methylene iodide.— $\text{C}_5\text{H}_8\text{O}_4$ , or,  $\text{CH}_2(\text{C}_2\text{H}_3\text{O}_2)_2$ .—Heavy, colorl. liq.—*Sol.* A., W. w. decomp.—*N. B.*: 170° C.—Antisept.

**Methylenediantipyryne.**—see **Formopyryne**

**Methylene Green Merck** (8)  
(Nitromethylene Green).—Action of nitrous acid on methylene blue.—Dark-brown powd.—*Sol.*, eas. in W. w. greenish-blue color; sl. A.—*Uses:* Dyeing cotton.

**Methylene Iodide Merck** (45)  
(Diiodomethane).—Fr. iodoform, by alc. solut. sod. acetate.— $\text{CH}_2\text{I}_2$ .—Leaflets at 0° C.; yellow liq. at ord. temp.—*Sol.* A., E.—*Sp. Gr.* 3.33 at 15° C.—94.9% of iodine.—Heaviest organic liquid known.—*Melt.* (leaflets) 10° C.—*Boil.* 180° C., with decomp.—*Uses:* Separating mixtures of minerals.

**Methylene Violet Merck** (15)  
(Dimethylsafranine Chloride).—Black powd.—*Sol.* W., & A., w. violet-red color.—*Uses:* Dyeing cotton.

**Methylenediantipyryne Tetrabromide.**—see **Salubrol**

**Methylenedicoitin.**—see **Fortoin**

**Methylenediguaiacol**  
(Geoform; Guaiacform; Pulmoform).— $\text{CH}_3\text{O} \cdot \text{OH} \cdot \text{C}_6\text{H}_3 \cdot \text{CH}_2 \cdot \text{C}_6\text{H}_3 \cdot \text{CH}_2 \cdot \text{O} \cdot \text{OH}$ .—Condens. prod. of formaldehyde & guaiacol.—Yellow, odorl., tastel. powd.; on warming develops vanilla-like

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



odor.—95.38% guaiacol.—*Sol.* A., E., & caustic-alkali soluts.; insol. W.—Antitubercular.—*Dose* 5–15 grains (0.3–1 Gm.).

*Methylenediguaiacol, Acetylated.*—see **Euguform**

*Methylenedimethyl Ester.* } —see **Methylal**  
*Methylenedimethylate.* }

*Methylenetetramine, Hexa.*—see **Formin**

**Methyleosine Red Merck** (10)  
 Potassium salt of tetrabromofluoresceine-methyl ester.—Green, lustrous powd.—*Sol.*, hot W. & A.—*Uses*: Dyeing silk.

*Methylethyl Carbinol.*—see **Alcohol Butylic, Secondary**

**Methylethylketone Merck** (15)  
 (Methylacetone).—Fr. methyl acetoacetate, by KOH.— $C_5H_{10}O$ , or,  $CH_3CO.C_2H_5$ .—Colorl. liq.; acetone-like odor.—Sp. Gr. 0.824 at 0° C.—*Misc.* W., A.—*Boil.* 77–78° C.

*Methylglycoll.*—see **Sarcosin**

*Methylglycoylamidine.*—see **Creatinine**

*Methylglycoylamine.*—see **Creatin**

*Methylglyoxalidine.*—see **Lysidine**

**Methylguanidine Merck** (2250)  
 (Methyluramine).—Ptoinaie, fr. creatin, by mercuric oxide w. dil. sulphuric acid.— $C_2H_7N_3$ , or,  $NH_2C(NH_2).NH(CH_3)$ .—Colorl., deliq., str. alkaline mass.—*Sol.* W.—*Caut.* Poison! Kills rabbits with symptoms of dyspnea & spasms.

**Methylguanidine Hydrochloride Merck** (2250)  
 $C_2H_7N_3.HCl$ .—Prism. cryst.—*Sol.* W.

*Methylguanidineacetic Acid.*—see **Creatin**

*Methylhexylketone.*—see **Aldehyde, Caprylic**;  
**Methyloenanthone**

*Methylisobutynylketone.*—see **Mesityl Oxide**

*Methylisopropylphenanthrene.*—see **Retene**

*Methylmorphine.*—see **Codeine**

**Methyloentanone Merck** (85)  
 (Methylhexylketone).—Fr. sodium ricinoleate with sodium hydroxide, by distil.— $C_8H_{16}O$ , or,  $CH_3CO(CH_2)_6CH_3$ .—Colorl. liq.; apple odor; camphor. taste.—Sp. Gr. 0.835 at 0° C.—*Sol.*, A., E.—*Boil.* 172° C.

*Methylxyethylpyridinetetrahydride.*—see **Tropine**

*Methylpara-amidometacresol Sulphate (or Hydrochloride).*—see **Metol**

*Methylparaoxybenzaldehyde.*—see **Aldehyde Anisic**

**Methylphenacetin**

Fr. phenacetin-sodium dissolved in xylene, by methyl iodide.— $C_{11}H_{15}NO_2$ , or,  $C_6H_4(OC_2H_5)N-$

$(CH_3)CH_2CO$ .—Colorl. cryst.—*Sol.* A., E.; sl. in W.—*Melt.* 40° C.—Hypnotic.

*Methylphenylester.*—see **Anisol**

**Methylpropylbenzene (Meta-) Merck** (60)  
 (Cymene fr. Oil Turpentine; Metacymol).— $C_{10}H_{14}$ , or,  $C_6H_4.CH_3[1].C_3H_7[3]$ .—By treating mixt. of metabromotoluene & propyl bromide w. sodium.—Colorl. liq.—*Sol.* A., E., B.—Sp. Gr. 0.863 at 15° C.—*Boil.* 175–177° C.

*Methylpropylcarbinolurethane.*—see **Hedonal**

**Methylpropylketone Merck** (90)  
 Fr. calcium butyrate & acetate, by distil.— $C_5H_{10}O$ , or,  $CH_3CO.C_3H_7$ .—Colorl. liq.—Sp. Gr. 0.812 at 15° C.—*Sol.* A.; v. sl. W.—*Boil.* 102° C.

*Methylpropylphenol, Normal.*—see **Thymol**

*Methylpropylphenyl Hexahydride.*—see **Menthol**

*Methylprotocatechuic Aldehyde.*—see **Vanillin**

*Methylpseudobutylketone.*—see **Pinacolone**

*Methylquinoline.*—see **Lepidine**

*Methylresoreinol.*—see **Orcin**

*Methylrhodin.*—see **Methyl Acetylsalicylate**

**Methylstrychnine Merck** (1500)  
 (Strychninemethylammonium Hydroxide).—Fr. strychnine, by methyl iodide, & removal of iodine.— $CH_3.N^+OC_{20}H_{22}(NH).CO.O + 4H_2O$ .—Yellow powd.—*Sol.* W., A.—*Uses*, &c.: As of curare.

**Methylstrychnine Iodide Merck** (1500)  
 (Strychninemethylammonium Iodide).—Fr. strychnine, by action of methyl iodide in closed tube.— $C_{21}H_{22}(CH_3)N_2O_2.I$ , or,  $CH_3.I.N^+OC_{20}H_{22}(NH).COOH$ .—Wh. shin. cryst.—*Sol.*, sl. in W.—*Caut.* Poison!

*Methylstyrylketone.*—see **Benzylideneacetone**

*Methylsulfonyl.*—see **Sulphonethylmethane**;  
**Trional**

*Methyltheobromine.*—see **Caffeine**

**Methylthionine Hydrochloride Merck.**—Highest Purity, Medicinal (16)

(Methylene Blue, Medicinal; Tetramethylthionine Hydrochloride).—Purified dye-stuff, free fr. zinc chloride.— $C_{16}H_{18}N_3S.Cl$ .—Dark-green, cryst. powd.—*Sol.*, eas. W.; less read. A.—Anod.; Antiper.; Antipyr.—*Uses*: Rheum., malaria, cystitis, pyelitis, carcinoma, black-water fever, diabetes, gonorr., & neuralgia.—*Dose* 2–4 grains (0.12–0.25 Gm.) in capsules.—*Inj.* 1 grain (0.06 Gm.) in aqu. solut.—*Max. D.* 15 grains (1 Gm.) single, or p. day.—*Appl.*, dusting powd. in blennorrhagic vaginitis & metritis; as enema (0.1–0.2:500–1000 W.) in dysentery; intramuscularly,  $1\frac{1}{2}$  grains (0.1 Gm.) in mania; also as diagnostic means of determining the degree of permeability of renal tissue by inject. of 15 ml

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



(1 Cc.) of 5% solut.—During treatment w. methylene blue the urine acquires a green color. By-effects (e.g., irritation of bladder) are removed or prevented by administering a pinch or so of powd. nutmegs.

*Methyltrihydroxyanthraquinone*.—see **Emodin**

*Methyluramine*.—see **Methylguanidine**

*Methylurethane*.—see **Urethylane**

**Methysticin Merck** (1500)  
(Kawaïne).—Non-nitrogenous substance fr. root *Macropiper* (Piper) *methysticum*, Forst. (Kava Root).— $C_{16}H_{18}O_5$ .—Wh., prismatic need.; tastel.—*Sol.*, v. eas. hot A., B., C.; sl. in W., E., ligroin.—*Melt.* 137° C. Physiologically inactive.

*Methysticum*.—see **Kava-Kava**

**Metol** (15)  
(Monomethylpara-amidometaeresol Sulphate [or Hydrochloride]).— $(C_6H_4[OH](CH_2[NHCH_3])_2 \cdot H_2SO_4$ .—Wh. powd.—*Sol.* W.—*Uses*: Photog. develop., & dyeing hair & furs.

*Metozin*.—see **Antipyrine**

*Metternicht's Night Green*.—see **Iodine Green**

**Meum**  
(Spiguel; Spignet; Mew; Bearwort).—Root of *Meum athamanticum*, Jacq. Umbelliferae.—*Habit.*: Europe.—*Etymol.*: Grk. "meion," smaller, because this plant is smaller than the other members of the order. "Athamantica," fr. "Athamas," one of the Boeotian kings, for whom the plant was named.—*Constit.*: Volat. oil; resin.—*Arom.*: Tonic (in hysteria); Carminat.; Stomach.; Emmen.

**Mezereum**.—*U. S. P.*  
(Mezercon; Olive Spurge; Dwarf Bay; Magell; Paradise Plant; Spurge Flax; Wild Pepper).—Dried bark (also seed, though not official) of *Daphne Mezereum*, L., & o. European spec. of *Daphne*. Thymelaceae.—*Habit.*: Mountainous Europe; Siberia; Canada; New England.—*Etymol.*: Fr. Grk. "daphne," the laurel or bay tree; or "daio," to burn, & "phone," sound, i.e., it crackles when burning. "Mezereum" fr. Persian "mazeriyn," the name of the plant; or according to some fr. the Italian "ammazare," to kill.—Long, thin bands, usually folded or rolled into disks; extern., yellowish or brownish-yellow; underneath light-greenish; inner surface whitish, silky; inodorous; very acrid taste.—*Constit.*: *Bark*: Mezerein (acrid resin); daphnin,  $C_{15}H_{16}O_9$ ; umbelliferon; acrid, volat. oil.—*Seed*: Volat. oil; fixed oil; acrid resin.—*Bark*: Sialagogue; Stim.; Rubef.; Diuret.; Antisyphilitic; Alter.; Vesicant.—*Uses*: *Seed*: Diuret.; also used in alcoh. tinct. in toothache.—*Bark*: in second. syphilis, chron. rheumat., & obstin. skin diseases.—*Extern.*, as irrit. oint., or blister, & for indol. ulcers.—*Doses*: *Bark*: 2-10 grains (0.12-0.6 Gm.).—*Alcoh. extr.*, 1-3 grains (0.06-0.2 Gm.).—*Fld. extr.*, 5-15 ℥ (0.3-1 Cc.).—*Antid.*,

emetics, stomach siphon, demulcents, large quantities warm water.

*Michler's Ketone*.—see **Tetramethyldiaminobenzophenone**

**Microcidin** (10)  
(Betanaphthol-Sodium; Sodium-Naphthol; Sodium Betanaphtholate).—75% sodium naphtholate.—Grayish-wh. powd.—*Sol.* 3 W.—Antisept.—*Uses*: In 3-5% aq. solut. assurg. antisept. in compresses; in ear diseases in 0.3-0.4% solut.; & in nose affect. in 0.1% solut.

*Microcosmic Salt*.—see **Sodium & Ammonium Phosphate**

**Micromeria**  
(Yerba Buena).—Lvs. of *Micromeria Douglasii*, Benth. Labiatae.—*Habit.*: U. S. (Pacific coast).—*Etymol.*: Grk. "mikros," small, & "meros," part, referring to the smallness of the various parts of the plant. "Yerba buena" is the Spanish name for mint.—*Arom.*: Carmin.; Anthelm.; & Refrig.—*Uses*: Nausea, spasms, pains in stomach and bowels, fever, & worms.—*Dose*: Fld. extr., 30-120 ℥ (2-S Cc.).

**Migrainin**  
Mixt. of antipyrine, caffeine, & citric acid.—Antineuralgic.—*Uses*: Migraine, influenza, & conditions following alcoholic excesses.—*Dose* 15 grains (1 Gm.).

*Mikania Guaco*.—see **Guaco**

*Milfoil*.—see **Achillea**

**Milk Sugar Merck**.—Highest Purity, powd. (1)  
(Lactose).—Fr. milk whey; highly purified.— $C_{12}H_{22}O_{11} + H_2O$ .—Impalp., wh. powd.; sweetish taste.—*Sol.* 6 W. at 15° C.—Diuretic.—*Uses*: Consumption, cardiac dropsy, & wasting dis.—*Dose* 1-6 oz. (30-180 Gm.) dissolved in  $\frac{1}{2}$  gal. (abt. 2 liters) water, per day, all other drink being avoided.—Also used in pharmacy as base for pills, tablets, &c.; & in preparing milk for infants.

*Note*.—This milk sugar finds constant & enthusiastic demand whenever an extra pure article is needed, as in infants' foods, &c.

do. Merck.—Highest Purity, cryst., & granular (1)

do. Merck.—Highest Purity, impalpable powd. (1)

*Milk of Sulphur*.—see **Sulphur, Precipitated**

*Milk Thistle*.—see **Carduus Marianus**

*Milk Vine*.—see **Periploca**

*Milkweed*.—see **Asclepias Syriaca**

**Millon's Reagent**.—For albuminoids  
Solut. mercury in equal vol. conc. nitric acid & then diluted w. 2 vols. W.—Affords a brick-red ppt. on warming with albumen, urea, &c.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S on your orders**

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Mineral Blue.**—see **Iron Ferrocyanide**

**Mineral Carbon.**—see **Graphite**

**Mineral Green.**—see **Copper Carbonate, Green**

**Mineral Pitch.**—see **Asphaltum**

**Mineral Wax.**—see **Ceresin, White & Yellow**

**Minium.**—see **Lead Oxide, Red**

**Mio-Mio.**—see **Baccharis**

**Mirbane, Essence or Oil.**—see **Nitrobenzene**

**Mistletoe.**—see **Viscum**

## Mitchella

(Partridge Berry; Squaw Vine). — Herb of *Mitchella repens*, L. Rubiaceae.—*Habit.*: Canada to Florida, west to Texas & Minnesota; Japan.—*Etymol.*: Named for Dr. John Mitchell, botanist, of Virginia (18th century). “Repens,” Lat., creeping, refers to the plant's habit.—*Constit.*: Saponin-like substance; resin; wax; gum.—*Diuret.*; *Alter.*; *Refrig.* Parturifacient.—*Uses*: Employed in febrile condit., & to facilitate labor.—*Dose*: Fld. extr., 30–60 m (2–4 Cc.).

**Mohr's Salt.**—see **Iron & Ammonium Sulphate, Ferrous**

## Mollin

A potash soap cont. abt. 17% of uncombined fat acid fr. cocanut oil, w. glycerin.—Yellowish-wh., smooth, soft, oint.-like mass; does not become rancid.—*Sol.* W.—*Uses*: Oint. base.

**Molucca Grains.**—see **Tigilium**

**Molybdenum Merck.**—Highest Purity (50

*Etymol.*: Fr. Grk. “molybdaina,” graphite, for which it was long mistaken. Discovered by Scheele to be a new element, & first obtained pure by Hjelm in 1780.—Metal.—Mo.—Dark-gray or black powd.; metal. luster on being rubbed.—Sp. Gr., about 8.56.

do. Merck.—Pure, fused (220

Mo.—Gray pieces; cryst. fracture.

**Molybdenum Anhydride.**—see (Acid) **Molybdic Anhydride**

**Molybdenum Disulphide.**—see **Molybdenum Sulphide**

**Molybdenum Oxide Merck.**—Pure (40

(Molybdenum Sesquioxide). —  $\text{Mo}_2\text{O}_3$  + aq. — Gray powd.—*Sol.*, hydrochloric acid.

**Molybdenum Sesquioxide.** — see **Molybdenum Oxide**

**Molybdenum Sulphide Merck** (40

(Molybdenum Disulphide; Molybdic Sulphide). —  $\text{MoS}_2$ .—Glist., black powd.—Insol. W.; dil. acids.

**Molybdenum Trioxide.** — see (Acid) **Molybdic Anhydride**

## Monarda

(American Horsemint; Wild Bergamot).—Lvs. of *Monarda punctata*, L. Labiate.—*Habit.*: New York to Florida, west to Texas & Wisconsin.—*Etymol.*: Named for N. Monardés, a Spanish botanist (16th century). “Punctata” refers to its punctate lvs.—*Constit.*: Volat. oil.—*Antiper.*; *Diaph.*; *Carmin.* — *Uses*: Intermitent fever, flatul. colic, cholera infantum, & as appl. in local paral.—*Dose*: Fld. extr., 15–60 m (1–4 Cc.).

## Monesia

(Buranhem; Guaranham).—Bark *Chrysophyl-lunglyciplœum*, Casaretti. Sapotaceae.—*Habit.*: Brazil.—*Etymol.*: An extract of the drug was first employed in Paris in 1838, under the name “monesia.” Grk. “chrysos,” gold, & “phyllon,” leaf, i.e., golden leaf; Grk. “glykos,” sweet, & “phloios,” bark, i.e., the bark has a sweetish taste.—Thin fragments,  $\frac{1}{4}$ – $\frac{1}{2}$  in. (6–12 Mm.) thick, nearly smooth; intern. cinnamon colored; taste at first sweetish; then acid & astring.; odorless.—*Constit.*: Saponin (monesin?); monesia-tannic acid; hiourahein (lucumin); glycyrrhizin.—*Expector.*; *Tonic*; *Emmen.*; *Alterat.*; *Astring.*; *Stom.*—*Uses*: Chiefly for preparing the extract; also known as “monesia,” which is employed in chron. diarrh., bronch., dyspeps., chron. catarrh., scrofula, scurvy, & menorrhagia.—*Extern.*, in leucor., spongy gums, ulcer. mouth, carious teeth, &c.—*Doses*: 2–20 grains (0.12–1.3 Gm.); extract 2–10 grains (0.12–0.6 Gm.).—Aqu. extr. 2–5 grains (0.12–0.3 Gm.).

**Monkshood.**—see **Aconite**

**Monoamidodiphenylamine Hydrochloride.**—see **Diphenylhydrazine**

**Monobenzoyl-arbutin.**—see **Cellotropin**

**Monobromantipyrine.**—see **Bromopyrine**

**Monobromethane.**—see **Ethyl Bromide**

**Monobromobenzene (or, -zol).**—see **Benzene, Monobromo-**

**Mono bromomalonie - Acid Diethylester.** — see **Ethyl Bromomalonate**

**Monobromophenol (Ortho-) Merck** (50

$\text{C}_6\text{H}_4\text{BrO}$ , or,  $\text{C}_6\text{H}_3\text{Br(OH)}$ [2.1].—Oily, yellow to red liq.—*Sol.* E., C.; 100 W.—*Boil.*, abt. 195° C.—*Antiseptic.* — *Uses*: *Extern.*, wounds, injuries, erysip., &c.—*Appl.* 1–2% in petrolatum, twice p. d.

**Monobromopropylene.**—see **Allyl Bromide**

**Monobromopropylphthalimide.**—see **Propylphthalimide Bromide**

**Monobromphenylacetamide.** — see **Bromacetanilide, Mono-**

**Monocalcium Orthophosphate.** — see **Calcium Phosphate, Monobasic**

**Monochloracetone.**—see **Chloracetone**

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Monochlorethane.*—see **Ethyl Chloride**

*Monochlorethylene Chloride.*—see **Ethylene Chloride, Monochloro-**

**Monochlorhydrin Merck** (30)  
(Chloropropylenglycol; Asymmetric, or Alpha-propenylchlorhydrin).—Fr. glycerin, by HCl— $C_3H_7ClO_2$ , or,  $CH_2ClCH(OH)(CH_2OH)$ .—Yellowish, syrupy liq.—Sp. Gr. 1.338 at 0° C.—Misc. W., A., E.

*Monochlorobenzene* (or, -zol).—see **Benzene, Monochloro-**

**Monochlorophenol (Meta-) Merck** (350)  
 $C_6H_4Cl(OH)$  [3:1].—Colorl. cryst.—Sol. A., E.—Melt. 28° C.—Boil. 214° C.

**Monochlorophenol (Para-) Merck** (7)  
Fr. para-aminophenol by displacing  $NH_2$  w. chlorine. —  $C_6H_4Cl(OH)$  [4:1].—Colorl. cryst.—Sol. E., alkalies; sl. W.—Melt. 37° C.—Boil. 217° C.—Antiseptic.—Uses: Extern., erysip., syphilitic dis. of the eyes, tuberc. dis. of throat, chron. swell & hyperpl. of muc. membr. of mouth & throat 5–20% solut. in glycerin w. brush. In lupus, apply it heated to 40° C., & afterwards use 25% salve. After 12 hours this paste is removed with cotton, & salicylated or iodoform ointment substituted. This treatment is repeated every 2 days. Spengler recommends 2% solutions as the best remedy for disinfecting tuberculous sputa. In keratitis & iritis, subconjunct. inject. of 1–2% aqu. solut.; in bronchitis & phthisis, inhal. of 16–30 drops; in dentistry, pure (in cavity), & as caustic in alveolar pyorrhea.

**do. Merck.—Liquid** (4)  
Yellowish liq.—Misc. A.—Sp. Gr., abt. 1.3 at 15° C.

*Monocitrylparaphenetidin.*—see **Apolysin**

*Monothyl Sulphate.*—see **Acid Ethylsulphuric**

*Monothylamine Chloride.*—see **Ethylamine Chloride**

*Monothylamine Hydriodide.*—see **Ethylamine Iodide**

*Monothylamine Sulphate.*—see **Ethylamine Sulphate**

*Monothylaniline.*—see **Ethylaniline**

*Monoiodobenzene* (or, -zol).—see **Benzene, Iodo-**

*Monoiododibismuthmethylen Dicrosotinate.*—see **Biodal**

*Monoiodoethane.*—see **Ethyl Iodide**

*Monol.*—see **Calcium Permanganate**

*Monomagnesium Phosphate.*—see **Magnesium Biphosphate**

*Monomethylaniline.*—see **Methylaniline**

*Monomethylcatechol.*—see **Guaiacol**

*Monomethylpara-amidometacresol Sulphate* (or *Hydrochloride*).—see **Metol**

*Monopara)phenetidincitric Acid* (or *Citrate*).—see **Apolysin**

*Monosalicylic-acid Glycerin Ester.*—see **Glycosal**

*Monse's Salt.*—see **Iron Sulphate, Basic**

*Monse's Solution.*—see **Iron Sulphate, Basic, Solution**

**Monsonia**  
(Neeta; Geita; i-Cquita).—Herb. of *Monsonia ovata*, Cav. Geraniaceae. *Habit.*: Cape of Good Hope.—*Ltymol.*: Named for Lady Anna Monson, who sent many plants from India to Linnaeus.—Astring.; Sedat.—Uses: Especially in dysent. —Dose 2–4 fl. dr. (8–15 Cc.) of 1:8 alcoholic tinct. every 4–6 hrs.

*Moonsced.*—see **Menispermum**

**Morchella**  
(Morell).—Fungus, *Morchella esculenta*, Pers. Discomycetes.—*Habit.*: Germany.—*Etymol.*: Perhaps fr. the low-German "mor," tender, soft.—Uses: Popular edible fungus.

*Mormon Tea.*—see **Ephedra**

**Morphine Merck.—Alkaloid** (70)  
(Morphia).—Alkaloid fr. opium.— $C_{17}H_{19}NO_3 + H_2O$ .—Wh. prisms; silvery luster; bitter taste.—Sol., amyl alcohol; 300 A.; 4,000 E.; 5,000 W. at 15° C.; 3,330 W.; 100 lime-water; 168 A.; 4,464 E.; 1,800 C.; 113.5 amyl alcohol, & 525 acetic ether, at 25° C., U. S. P.).—Melt., at abt. 200° C. w. beginning decomp.; when rap. heated, melts at 242–247° C. w. pronounced darkening (254° C., U. S. P.).—Hypn.; Sed.; Nar.—Uses: Relieve pain, nerv. excitem., &c. Aged & children v. susceptible, & need smaller doses than usual rules would require. Continued use establishes tolerance, & requires larger dose. Sulphate us'y prescribed.—Doses: For pain,  $\frac{1}{8}$ – $\frac{1}{2}$  grain (0.008–0.03 Gm.); hypnotic,  $\frac{1}{4}$  grain (0.015 Gm.) in solution or pill.—Max. D.  $\frac{1}{2}$  grain (0.03 Gm.), single; 2 grains (0.12 Gm.), p. day; subcut. in 2% solut., 15–30 M (1–2 Cc.) being injected.—Appl., in oint., 1–5:100; as enema,  $\frac{1}{12}$ – $\frac{1}{6}$  grain (0.005–0.01 Gm.); as supposit.,  $\frac{1}{6}$ – $\frac{1}{2}$  grain (0.01–0.03 Gm.).—In dentistry, mixed w. oil cloves as appl. to painful, exposed pulp in carious teeth.—Antid., emetics, stomach siphon, potass. permanganate (15 M [1 Cc.]) of a 1:20 aqu. solut. hypodermically, & a small tablespoonful per os every 2 hrs. of a 1:100 solut.; paraldehyde, pierotoxin, atropine sulphate ( $\frac{1}{120}$ – $\frac{1}{60}$  grain [0.0005–0.001 Gm.]) hypoderm.; strychnine, caffeine, cocaine, strong coffee, ice to head & heat to the hands & feet, mustard plasters, vinegar enemas, exercise, electric shock, &c.—Incomp., alkalies, tannic acid, iodic acid, potass. permangan., borax, chlorates, ferric chloride, iodides, lead acetate, lead subacet., magnesia, spt. nitrous ether, silver nitrate, mercury bichloride, gold & sod. chloride.—Caut. Poison I

**Morphine Acetate Merck** (60)  
 $C_{17}H_{19}NO_3 \cdot C_2H_3O_2 + 3H_2O$ .—Yellowish-white powd.; sl. acetic acid odor; decomposes with

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



age.—*Sol.* (when recently made) 2.5 W.; 5 G.; 47.6 A.; 1,700 E.; 2,100 C. at 15° C.; (2.25 W.; 21.6 A.; 480 C.; 5.2 G., at 25° C., U. S. P.).—*Melt.*, abt. 200° C.—Formerly salt most used.—*Max. D.*  $\frac{1}{2}$  grain (0.03 Gm.) single;  $\frac{1}{12}$  grains (0.1 Gm.) p. day.—*Caut.* Keep fr. air & light.

*Morphine Bimeconate.*—see **Morphine Meconate**  
*Morphine Bromide.*—see **Morphine Hydrobromide**

**Morphine Citrate Merck** (160)  
( $C_{17}H_{19}NO_3$ )<sub>3</sub>. $C_6H_8O_7$  + aq.—Wh., cryst. powd.—*Sol. W.*

do.—*Solution.*—*N. F.*

Fr. 3.3 Gm. morphine alkaloid, 2.75 Gm. citric acid, 0.1 Gm. cochineal, 12.5 Cc. alcohol, & dist. W. to make 100 Cc.—*Dose* 5  $\bar{m}$  (0.3 Cc.).

**Morphine Hydriodide Merck** (150)  
 $C_{17}H_{19}NO_3$ .HI + 2H<sub>2</sub>O.—Wh., cryst. need.—*Sol.*, hot W.

**Morphine Hydrobromide Merck** (67)  
(Morphine "Bromide," or IHydrobromate).— $C_{17}H_{19}NO_3$ .HBr + 2H<sub>2</sub>O.—Sm., wh., cryst. need.—*Sol. W.*—*Uses:* Nerv. affect. & delir. trem.; pref. to o. morphine salts.

**Morphine Hydrochloride Merck** (60)  
(Morphine Hydrochlorate, or Muriate).— $C_{17}H_{19}NO_3$ .HCl + 3H<sub>2</sub>O.—Wh. cryst., or cryst. powd.; bitter taste.—*Sol.* 24 W.; 62 A. at 15° C.; (17.2 W. & 42 A. at 25° C., U. S. P.); insol. E., C.—*Uses:* This is the salt us'y prescribed in Great Britain & Germany, but less often in United States.—*Doses:* Hypoderm.  $\frac{1}{4}$  to 1 syringe of 2% solution. Enema, or suppository,  $\frac{1}{12}$ – $\frac{1}{6}$  grain (0.005–0.01 Gm.). Children:  $\frac{1}{200}$  grain (0.0003 Gm.) for each year of age.

**Morphine Lactate Merck** (150)  
 $C_{17}H_{19}NO_3$ . $C_3H_5O_3$ —Wh., cryst. powd.—*Sol. W.*; sl. A.

**Morphine Meconate Merck** (68)  
(Morphine Bimeconate).—Form in which morphine chiefly exists in opium.—( $C_{17}H_{19}NO_3$ )<sub>2</sub>. $C_8H_7O_7$  + 5H<sub>2</sub>O.—Yellowish-wh., cryst. powd.—*Sol. A.*, 25 W.—*Uses:* Said to have less disagreeable effect on brain, stomach, & intest. than o. morphine salts.

*Morphine Muriate.*—see **Morphine Hydrochloride**

**Morphine Nitrate**  
 $C_{17}H_{19}NO_3$ .HNO<sub>3</sub>—Wh., cryst. need.—*Sol. W.*—*Caut.* Keep in dark amber bot.

**Morphine Oleate Merck.**—20% (35)  
Pure, precipitated morphine in oleic acid.—*Sol. A.*—*Uses:* Oint. where stomach rejects medicine.—*Appl.* 0.1–0.5 : 10 lanum & o. fat; linim., 1–2 : 30 oil.—*N. B.*: All the oleates change on long keeping, but Oleate of Morphine appears to change most rapidly of all, and therefore it is suspected that its occasional failure to relieve pain may be due to having been kept too long.

**Morphine Phthalate Merck** (126)  
( $C_{17}H_{19}NO_3$ )<sub>2</sub>. $C_8H_6O_4$ —Wh., cryst. powd.—77% morphine.—*Sol. W.*—*Uses:* Recommended for hypodermic use (Bombelon).

**Morphine Sulphate Merck.**—Cubes, flakes, cryst., & powd. (55)

( $C_{17}H_{19}NO_3$ )<sub>2</sub>.H<sub>2</sub>SO<sub>4</sub> + 5H<sub>2</sub>O.—Fine, wh., cryst. need.; silky luster; bitter taste.—*Sol.* 21 W., 702 A. at 15° C.; (15.3 W. & 465 A. at 25° C.; 0.6 W. at 80° C.; 187 A. at 60° C.; insol. E., C., U. S. P.).—*Melt.* 255° C.—At 250° C. bec. brown, then chars without melt. (U. S. P.).—Antispasm.; Hypn.; Analg.; Nar.—*Uses:* Most important salt of morphine in this country. Relieve pain, produce sleep, check diar. & dysent.; to relieve nervous. in delir. trem., &c.—*Dose*  $\frac{1}{12}$ – $\frac{1}{2}$  grain (0.005–0.03 Gm.) 3–4 t. p. d. in solut., pill, or powder.—*Max. D.*  $\frac{1}{2}$  grain (0.03 Gm.) single; 2 grains (0.12 Gm.) p. day.—*Incomp. & Antid.*, as of morphine alkaloid.

*Note.*—Its unique quality, determined by both chemical & physiological tests; adapts this salt for general use in all cases where prompt & reliable results are desired.

**Morphine Tannate**  
Approx.:  $C_{17}H_{19}NO_3$ .( $C_{14}H_{10}O_9$ )<sub>3</sub> + aq.—Brown, amorph. powd.—*Sol. A.*

**Morphine Tartrate Merck** (120)  
( $C_{17}H_{19}NO_3$ )<sub>2</sub>. $C_4H_6O_6$  + 3H<sub>2</sub>O.—Wh., cryst. powd.—*Sol. A.*, 10 W.—*Uses:* Hypoderm.

**Morphine Valerate Merck** (80)  
(Morphine Valerianate).— $C_{17}H_{19}NO_3$ . $C_5H_{10}O_2$ —Wh., cryst. powd.; darkens w. age & expos.—*Sol. W.*—Sedative.—*Uses:* Hyst., nervousn., delir. trem., &c.—*Dose:* As of morphine.—*Caut.* Keep fr. air & light.

**Morrenhia**  
(Tasi).—Root of *Morrenhia brachystephana*, Gr. Aselepiadaceæ.—*Habit.*: Argentine Republic & Brazil.—*Etymol.*: Named for Charles François Morren, a Belgian botanist (1807–1858). Grk. "brachys," short, & "stephanos," ring, or wreath, referring to the flowers.—*Constit.*: Morrenine (alkaloid).—Galaetag.—*Dose:* 1 oz. (30 Gm.) daily in 1:1,000–2,000 infus.—*Fld. extr.*, 1 fl. oz. (30 Cc.) daily with much water.

*Morruhol.*—see **Gaduol**

*Morsus Diaboli.*—see **Succisa**

**Morus Tinctoria**  
(Old Fustic; Yellow Brazil Wood).—Yellow dye-wood fr. *Morus (Broussonetia) tinctoria*, L. Moraceæ.—*Habit.*: South America; Central America; Cuba.—*Constit.*: Morin & machurin (two coloring matters).—*Uses:* Dyeing yellow.

*Mosaic Gold.*—see **Tin Disulphide**

*Motherwort.*—see **Leonurus**

*Mountain Blue.*—see **Copper Carbonate, Blue**

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Mountain Geranium.*—see **Geranium Robertianum**

*Mountain Grape.*—see **Berberis Aquifolium**

*Mountain Laurel.*—see **Kalmia**

*Mountain Parsley.*—see **Oreoselinum**

*Mountain Sage.*—see **Artemisia Frigida**

**Muavine Hydrobromide Merck** (4000  
(Muavine Hydrobromide).—Alkaloid of "munwi," bark fr. n. Mozambique tree used as an ordeal poison.—Yellowish-powd.—*Sol.* W., A.—*Cardiac Stimulant.*—*Uses:* As of erythrophleine & digitalin.—*Caut.* Poison!

**Mucin Merck.**—From Bile (1000  
Glucopeptid found in the bile, & in the submaxillary gland & o. organs; probably a mixt. of serum-globulin, & salts of true mucin & bile.—Greenish-gray or yellow powd.—*Sol.*, dil. alkalies; insol. W.—*Uses:* Intern., in round gastric ulcer, in order to afford a protective coating for the corroded gastric mucosa.—*Dose* 10 grains (0.6 Gm.) with an equal quant. sod. bicarb. at beginning of each meal.

**Mucuna**  
(Cowage; Cowitch; Cowhage).—Hairs of the pods of *Mucuna* (*Dolichos*, L.) *pruriens*. De C. Leguminosae, Papilionaceae.—*Habit.*: Tropical Africa, America, & Asia.—*Etymol.*: "Mucuna" is the Brazilian name for the plant; Grk. "dolichos," long, i.e., the pods are long.; Lat. "prurio," to itch, i.e., the pod hairs irritate.—Straight hairs abt.  $\frac{1}{8}$  in. (3 Mm.) long; brown & glossy; readily penetrate the skin, causing intense itching.—*Uses:* Irrit. (in oint.); Anthelm. (in honey).—*Dose* 1-3 grains (0.06-0.2 Gm.).

*Mucuna Urens.*—see **Cali**

*Mugwort.*—see **Artemisia Vulgaris**

**Muira Puama**

Wood of *Liriosma ovata*, Miers, Oleaceae, or, according to Rebourgeon, *Acanthea virilis*. Acanthaceae.—*Habit.*: Brazil.—*Etymol.*: Fr. Brazilian "muira," wood, & "puama," strength, power, referring to the use made of the wood by the natives as an aphrodisiac.—*Constit.*: Aromat. resin; muira-puamine; fat; two resinous acids.—Powerful Aphrodisiac; Antidyseuterie; Antirheum.—*Uses:* Sexual debil., senile weakness, dysentery, impotence, dyspep., rheum., menstrual colic, & paralysis.—*Doses:* In rheum., 5-8 M (0.3-0.5 Cc.) of 1:5 aleoh. tinct.; as an aphrod., 15-60 M (1-4 Cc.) fld. extr. 3 t. p. d.

**Mukogen**

(Dimethylphenylpara-ammoniumbetaoxynaphthoxazine Chloride).— $C_{18}H_{15}N_2(O_2)Cl$ .—Blue cryst.—*Sol.* A., alk. soluts.; alm. insol. W.—*Cathart.*—*Dose*  $1\frac{1}{2}$ -5 grains (0.1-0.3 Gm.).

**Mulder's Reagent.**—For glucose

Solut. indigocarmine rendered alkaline w. sod.

carbonate. On adding the reagent to saccharine liquids & heating, a color-change fr. green to red & yellow takes place.

*Mullein.*—see **Verbascum**

**Müller's Solution.**—Hardening Fluid

1 Gm. sod. sulphate, 2 Gm. potass. dichromate, & 100 Cc. W.—*Uses:* Hardening histological specimens, & also as a maceration fluid.

*Murexane.*—see **Uramil**

**Murexid Merck** (50  
(Acid Ammonium Purpurate).—Color, matter fr. guano, or synthet. fr. uric acid by nitric acid.— $C_8H_8N_6O_6 + H_2O$ , or,  $NH_4C_8H_8N_6O_6 + H_2O$ .—Purple powd.—*Sol.* W.—*Uses:* Techn.

**Mururé**

(Vegetable Mercury).—Bark of *Urostigma cystopodium*, Migg. Urticaceae.—*Habit.*: Brazil.—*Etymol.*: "Mururé" is the Brazilian name of the drug.—Bark is brick-red, w. darker patches on outer surface; intern., fibrous, grayish, & rather hard; acid, syrupy liquid exudes on incision.—*Constit.*: Fixed oil; alkaloid (?).—*Dras-tic Purg.*; Antisyph.; Antirheum.—*Dose* 2-4 dr. (4-8 Gm.).

*Muscle Fibrin.*—see **Synntonin**

**Musk.**—U. S. P. (600

Dried secretion fr. preputial follicles of *Moschus moschiferus*, L. Artiodactyla, Mammalia. Ruminantia.—*Habit.* Northern Asia; Tonquin; Thibet.—*Etymol.*: Grk. "moschos," fr. Sanskrit "mushka," testicle, originally a little mouse. "Moschiferus," fr. Lat. "moschus," musk, & "ferre," to bear, i.e., musk producing.—*Constit.*: Volat. odorosus subst.; cholesterin; ammonia; fat; wax; gelatinous & albuminous principles.—*Stim.*; Antispasmodic; Nervine; Anodyne; Aphrodisiac.—*Uses:* Collapse, & nerv. affect.—*Techn.*, in perfumery.—*Doses:* 1-10 grains (0.06-0.6 Gm.).—Tinct., 30-120 M (2-8 Cc.).

**Musk Artificial**

(Trinitrobutyltolylazoimide; Musk "Baur").—Wh., cryst. powd.; made by a patented process. Other & similar substances obtained by synthesis, as dinitrobutylxylylazoimide (melt. 89° C.), trinitroisobutyltoluene, &c., are also marketed as "Artificial Musk."—*Sol.* A., E.—*Melt.* 146° C.—*Uses:* Techn., in perfumery.

*Musk Mallow* or *Seed.*—see **Abelmoschus**

*Musk Root.*—see **Sumbul**

**Mussanin**

Fr. *Albizzia anthelmintica*, Brogn.—Anthelm.—*Uses:* Worms; reported superior to koussou.—*Dose* 1 to 2 oz. (30-60 Gm.), in infusion.

*Mustard, Black.*—see **Sinapis Nigra**

*Mustard, White.*—see **Sinapis Alba**

*Muthmann's Liquid.*—see **Acetylene Tetrabromide**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Mydrine Merck** (1568)

Combination of ephedrine & homatropine.—Wh. powd.—*Sol.* W. — *Mydriatic.*—*Uses:* Where evanescent mydriasis desired; visual disturbance lasts only abt. 1 hr. Espec. valuable in diagnosis.—*Appl.*, 2-3 drops of 10% aqu. solut.

**Mydrol**

(Iodomethylphenylpyrazolon). — Wh., odorl., bitter powd.—*Sol.* W., A.; insol. E.—*Mydriatic.* — *Appl.*, in 5-10% solut.

**Mylabris**

(Chinese Cantharides; Chinese Blistering Flies). — Dried insect, *Mylabris Elichorii*, Fabr. Coleoptera.—*Habit.*: China & East. India.—*Etymol.*: Fr. Grk. "mylabris," fr. "myle," a mill.—Rather smaller than cantharides; black cylindrical body, rounded above, flattish below; black wing cases marked with a spot at point of insertion, & has two yellow bands, all downy.—*Constit.*: Cantharidin (quantity larger than in cantharides, 1-1.2%); odor & taste as of cantharides.—*Uses, Dose, & Antid.*: As of cantharides.

**Myosin Merck**

(650)

(Muscle Fibrin).—Albuminoid fr. muscle plasma of lean meat.—Yellowish-wh. powd.—*Sol.*, dil. solut. sod. chloride, dil. acids & alkalis. — Myosin is believed to be the substance which, on coagulating in the muscular fiber, causes rigor mortis.

**Myrica**

(Candleberry; Bayberry; Wax Myrtle; Wax Berry; Tallow Shrub).—Bark of *Myrica cerifera*, L. Myrtaceae. — *Habit.*: Maryland to Florida, west to Texas & Arkansas.—*Etymol.*: Grk. "myrike," the tamarisk of the ancient Greeks. "Cerifera," fr. Lat. "cera," wax, & "fero," to bear, i.e., the plant yields wax.—*Constit.*: Aeric resin; astring. resin; myricinic acid; tannin; gallic acid; red coloring matter; gum; starch, &c. Bayberry wax consists of palmitin, palmitic acid, myristin, & lauric acid.—*Alter.*; Cholag.; Astring.—*Uses*: Diar., serof., & jaundice.—*Extern.*, in ulcers, sore throat, & leucor.—*Dose*: Fld. extr., 20-60 ℥ (1.3-4 Ce.).

**Myristica.—U. S. P.**

(Nutmeg; Nux Moschata; Nucis Nucistre) — Kernel of ripe seed of *Myristica fragrans*. Houttuyn, Myristicaceae, deprived of its testa.—*Habit.*: Southern Asia; Moluccas; cult. in many tropical countries.—*Etymol.*: Grk. "myron," balsam; "myristikos," belonging to ointments.—*Constit.*: Fixed & volat. oils.—Carmin.; Digestive.—*Uses*: Flatulence & intest. catarrh.; also as spice in cookery.—*Dose* 5-20 grains (0.3-1.3 Gm.).—Fld. extr., 5-20 ℥ (0.3-1.3 Ce.).

**Myristin Merck**

(100)

(Glyceryl Ester of Myristic Acid). —  $C_{14}H_{27}O_3$ . — ( $C_{14}H_{27}O_3$ ). — Fatty substance fr. fat, obtained by expression fr. seed kernels of *Myristica moschata*

(Oil-nut).—Wh. to yellowish-gray powd.—*Sol.*, warm A.; E., B., C.—*Melt.* 55° C.

**Myrobalan**

(Myrobalans). — Fruit of *Terminalia Chebula*, Retzius. Combretaceae.—*Habit.*: East Indies.—*Etymol.*: Grk. "myron," balsam, & "balanos," oak, or nut, fr. which balsam is obtained.—Ovoid or oblong, abt. size of prune; color yellow-brown; single white seed.—*Constit.*: Tannin; resin; gallic acid; mucilage. — Astring.; Cathart. — *Uses*: Intest. catarrh & diarrh. — *Techn.*, in tanning & dyeing.—*Doses*: 2-15 grains (0.12-1 Gm.).—Aqu. extr., 4-10 grains (0.25-0.6 Gm.).

**Myrrh.—U. S. P.**

(Gum-resin Myrrh). — Gum-resin fr. *Commiphora Myrrha* (Nees) Engler. Burseraceae.—*Habit.*: Nubia; Somali-land; Arabia.—*Etymol.*: Grk. "myron," balsam, & "rheein," to flow. Derived fr. Arabic "murr," Hebrew "mar," bitter, i.e., the gum resin has a bitterish taste. "Commiphora" fr. Grk. "kommi," gum, & "phoros, pherein," bears, to bear, i.e., gum-yielding.—*Constit.*: Volat. oil; bitter principle (glucoside); resin (myrrhin),  $C_{44}H_{72}O_{10}$ ; gum.—Tonic; Stomachic; Stim.; Expector.; Emmen.; Astring.; Carmin.; Vulnerary.—*Uses*: Catarrh, phthisis, amenor., chlorosis, & debility. — *Extern.*, in spongy gums, aphthous sore throat, & unhealthy ulc. — *Techn.*, in dentifrices. — The oil is used internally in bronchitis.—*Doses*: 5-30 grains (0.3-2 Gm.).—Aqu. extr., 5-15 grains (0.3-1 Gm.).—Fld. extr., 10-30 ℥ (0.6-2 Ce.). —Tinct., 15-60 ℥ (1-4 Ce.).

**Myrtle.—see Myrtus****Myrtol Merck**

(22)

Fr. essential oil of *Myrtus communis*, L., by fractional distil., 160-180° C. — Mixt. dextro-pinene, eucalyptol, & a not fully known camphor.—Clear, color. liq.; agre., ether. odor.—*Sol.* A.—Sp. Gr. 0.88-0.89 at 15° C.—Antisep.; Sed.; Stim.—*Uses*: Chronic bronch., tonsil., pulm. gangrene, cyst., & pyelitis.—*Dose* 1-2 ℥ (0.06-0.12 Ce.) several t. p. d.

**Myrtus**

(Common Myrtle; European Myrtle; Myrtle). — Lvs. of *Myrtus communis*, L. Myrtaceae.—*Habit.*: Mediterranean region; Western Asia.—*Etymol.*: Fr. Grk. "myrtos," myrtle, fr. "myron," balsam.—*Constit.*: Volat. oil; bitter extractive; tannin; myrtol. — *Uses*: Bronch. & vesical catarrhs, leucor., gonor., & piles. — *Dose* 75-150 grains (5-10 Gm.) per quart (abt. 1 liter) of decoct.—*Extern.*, 4-8 dr. (15-30 Gm.) per quart (abt. 1 liter).

**Myrtus Chekan.—see Eugenia Chequen****N**

*Nacgel's Solution.*—see Zinc Chloriodide, Solution

*Naphtha.*—see Benzin

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Cuinaeol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles,



*Naphtha*, Coal. —see **Benzene**

*Naphtha*, *Vinagar*. —see **Ethyl Acetate**

**Naphthalene Merck.** —Highest Purity, Medicinal, cryst. or powder (4)

[Naphthalin. Tar Camphor. —Hydrocarbon fr. coal-tar —  $C_{10}H_8$ . —Wh. scales or powd.; str. coal-tar odor.—*Sol.* A., C., paraffin, E.—*Melt.* 79–80° C.—*Boil.* 218° C.—*Antisept.*; Antidiarr.; Anthelm.; Antipyret.—*Uses:* Intern., chronic & acute intest. catarrhs, worms, intest. inflam., cholera, typhoid fever, & chronic bronch.—*Extern.*, oint. (1–15) in skin dis.—*Dose* 2–8–15 grains (0.12–0.5–1 Gm.) in powder or capsule. For tapeworms 15 grains (1 Gm.), followed some hours later by castor oil.—*Max. D.* 90 grains (6 Gm.) p. day.

do. Merck.—Resublimed (1)  
Silky, wh. flakes.—*Uses:* In manuf. celluloid

do. —Crude, flakes (1)  
Yellowish to brownish cryst., or round balls.—*Sol.* A., E., C., B.—*Uses:* Techn., in manuf. dyes, phthalic acid, & naphthalene compounds; also for carburetted illuminating gas (as Albocarbon), destroying moths, in mixture w. oil rape seed as lubricant, & in manuf. of lampblack.

**Naphthalene (Alpha-) Dibromo- Merck** (10)  
 $C_{10}H_6Br_2$ [1:3].—Wh. to yellowish powd.—*Sol.* A.—*Melt.* 64° C.

**Naphthalene (Alpha-) Dichloro- Merck** (35)  
 $C_{10}H_6Cl_2$ [1:2].—Yellowish, cryst. powd.—*Sol.* A., E.—*Melt.* 35° C.—*Boil.* 280–282° C.

**Naphthalene (Alpha-) Monobromo- Merck** (10)  
Fr. naphthalene in carbon disulphide, by bromine. — $C_{10}H_7Br$ . —Yellowish liq.; high refractive power.—*Sp. Gr.* 1.5 at 15° C.—*Misc.* A., E., B.—*Boil.* 277° C.—*Uses:* As imbedding material in microscopy, because of its high index of refraction (1.658), for examining diatoms.

**Naphthalene (Alpha-) Monochloro- Merck** (15)  
By passing chlorine through boiling naphthalene. — $C_{10}H_7Cl$ . —Yellowish liq.—*Sol.* A., B., & carbon disulphide.—*Boil.* 251–263° C.

**Naphthalene (Beta-) Dibromo- Merck** (6)  
 $C_{10}H_6Br_2$ [1:4].—Wh. cryst.—*Melt.* 81–82° C.—*Boil.* 310° C.—*Sol.* A.

**Naphthalene (Beta-) Monochloro-**  
By action of phosphorus pentachloride upon betanaphthol. — $C_{10}H_7Cl$ .—Wh., lustr. scales.—*Melt.* 56° C.—*Boil.* 265° C.

**Naphthalene (Beta-) Sulphochloride Merck** (70)  
 $C_{10}H_7SO_2Cl$ .—Colorl. leaflets.—*Sol.* A., E., B.—*Melt.* 66° C.

*Naphthalene Red, Rose, or Scarlet.*—see **Magdala Red**

**Naphthalene Tetrachloride Merck** (30)

Fr. alphanaphthalene—alphanaphthalene tetrachloride by alcoholic potash. — $C_{10}H_2Cl_4$ .—Colorl. cryst.—*Sol.* A., E.—*Melt.* 182° C.

*Naphthalene Yellow.*—see **Martius Yellow**

*Naphthalidine.*—see **Naphtylamine, Alpha-**

*Naphthalin.*—see **Naphthalene**

*Naphthalol.*—see **Betol**

*Naphthindophenol.*—see **Indophenol**

*Naphthol, Alpha-*—see **Alphanaphthol**

*Naphthol, Beta-*—see **Betanaphthol**

*Naphthol Black.*—see **Brilliant Black**

*Naphthol Camphor.*—see **Betanaphthol, Camphorated**

**Naphthol Green B Merck** (6)

[Ferro-sodium salt of nitrosobetanaphtholmonosulphonic Acid].—Green powd.—*Sol.* W., w. yellowish-green color.—*Uses:* Coloring & painting.

*Naphthol Yellow.*—see **Martius Yellow**

**Naphthol Yellow S Merck** (5)  
(Citronin A.; Sulphur Yellow S.; Acid Yellow S.).—Potass. or sod. salt of dinitroalphanaphtholsulphonic acid.—Orange-yellow powd.—*Sol.*, eas. W.—*Uses:* Coloring; also for dyeing wool & silk.

*Naphthol-aristol.*—see **Iodonaphthol**

*Naphtholbenzein, Alpha-*—see **Alphanaphtholbenzein**

*Naphtholquinoline.*—see **Quinoline-betanaphthol**

**Naphtoquinone (Alpha-) Merck** (350)

Fr. naphthalene, by oxidation in acetic acid. — $C_{10}H_6O_2$ , or  $C_{10}H_4O$ [1] $C_6H_5O$ [4].—Yellowish cryst.—*Sol.* A., E., C., B., acetic acid; sl. W.—*Melt.* 125° C.

**Naphtoquinone (Beta-) Merck** (250)

$C_6H_4O$ [1] $C_4H_2O$ [2].—Orange-red powd.—*Sol.* A., E., B.—Decomp. at 115–120° C. without melt.

*Naphthosolol.*—see **Betol**

**Naphtylamine (Alpha-) Merck.**—Pure, white (6)

(Naphthalidine).—Fr. reduct. nitronaphthalene by alcoholic ammon. sulphide. — $C_{10}H_9N$ , or  $C_{10}H_7NH_2$ .—Fine, wh. need.—*Sol.* A., E.—*Melt.* 50° C.—*Boil.* 300° C.—*Uses:* In form of hydrochloride with sulphanilic acid as reagent for nitrous acid.

do. Merck.—Crude (2)

Reddish, cryst. mass.—*Uses:* Techn., in manuf. of Martius Yellow & Magdala Red.

**Naphtylamine (Alpha-) Hydrochloride Merck** (6)

$C_{10}H_7NH_2.HCl$ .—Wh. to gray, cryst. powd.—

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Sol.* W., A., E.—*Uses*: With sulphanilic acid as test for nitrous acid.

**Naphtylamine (Alpha-) Sulphate Merck** (6)  
 $(C_{10}H_7NH_2)_2 \cdot H_2SO_4 + 2H_2O$ .—Yellowish, cryst. powd.—*Sol.* W., A.

**Naphtylamine (Beta-) Merck**—Pure (8)  
 By heating betanaphthol w. ammonium & zinc chloride.— $C_{10}H_5N$ , or,  $C_{10}H_7 \cdot NH_2$ .—Wh. to reddish cryst.—*Sol.* A., E.; sl. in W.—*Melt.* 112° C.—*Boil.* 294° C.—*Uses*: Techn., in manuf. coal-tar dyes.

do. Merck.—Crude (4)

**Naphtylamine (Beta-) Hydrochloride Merck** (10)  
 $C_{10}H_5N \cdot HCl$ .—Colorl. to yellowish plates.—*Sol.* W., A.; sl. in hydrochl. acid.

*Naphtylated Camphor*.—see **Betanaphthol, Camphorated**

*Naphtylene Blue*.—see **Phenyl Blue**

*Naphtylene-ethylene*.—see **Acenaphtene**

**Naphtylhydrazine (Alpha-) Hydrochloride Merck**.—Powder (55)

$C_{10}H_{11}N_2Cl$ , or,  $C_{10}H_7NH \cdot NH_2 \cdot HCl$ .—Reddish powd.—*Sol.* W.

**Naphtylhydrazine (Beta-) Hydrochloride Merck**.—Powder (55)

$C_{10}H_{11}N_2Cl$ , or,  $C_{10}H_7NH \cdot NH_2 \cdot HCl$ .—Reddish powd.—*Sol.* A., E.; sl. in W.

*Naples Yellow*.—see **Lead Antimonate**

**Napus**

(Rape).—Flowers & seed of *Brassica Napus*, L. Cruciferae. — *Habit.*: Europe. — *Etymol.*: Grk. "napus," turnip, i.e., the genus yields the turnip. "Brassica," fr. Celtie "bresic," cabbage, i.e., the genus *Brassica* yields the cabbage.—*Constit.*: Seed, volat. & fixed oils.—*Uses*: Flowers: Domestic remedy.—*Seed*: Source of rape-seed oil.

**Narceine Merck** (200)

Alkaloid from opium.— $C_{23}H_{27}NO_8 + 3H_2O$ , or,  $N(CH_3)_2 \cdot CH_2 \cdot CH_2 \cdot (CH_2O)_2 C_6H(OCH_3) \cdot CH_2 \cdot CO \cdot C_6H_5 \cdot CO_2H \cdot (OCH_3)_2 + 3H_2O$ .—Wh. cryst.—*Sol.* A.; hot W.—*Melt.*, at various temp., acc. to content of water of crystallization, e.g., when anhydrous, at 145° C.; with 3 equiv. aq. at 171° C.—Hypn.; Sed.; Analg.; Nar.—*Uses*: Insom. & pain, as morphine; effect similar but milder & free fr. disagree. after-effects. Some authors claim it possesses no action whatever.—*Doses*:  $1/3$ – $3/4$  grain (0.02–0.05 Gm.) several t. p. d.; *subcut.*,  $1/4$  grain (0.015 Gm.); in enema & in supposit.,  $1/6$ – $3/4$  grain (0.01–0.05 Gm.).

**Narceine Hydrobromide Merck** (450)

$C_{23}H_{27}NO_8 \cdot HBr + aq.$ —Wh. to yellowish, gran., cryst. powd.—*Sol.* A.; hot W.

**Narceine Hydrochloride Merck** (360)

$C_{23}H_{27}NO_8 \cdot HCl + 3H_2O$ .—Wh., granular powd.—*Sol.* A.; boiling W.—*Dose*  $1/6$ –1 grain (0.01–0.06 Gm.).

**Narceine Meconate Merck**.—True Salt (400)

True salt, not the French Meconarceine.— $C_{23}H_{27}NO_8 \cdot C_7H_4O_7 + aq.$ —Lemon-yellow, cryst. need.—*Sol.*, hot W.—*Melt.* 126° C.

*Narceine-sodium & Sodium Salicylate*.—see **Antispasmin**

**Narceine Sulphate Merck** (400)

$C_{23}H_{27}NO_8 \cdot H_2SO_4 + 11H_2O$ .—Yellowish, cryst. powd.—*Sol.* A.

**Narcotine Merck**.—Pure (35)

(Anarcotine).—Alkaloid fr. opium, & having a v. weak basic power.— $C_{22}H_{23}NO_7$ , or,  $(CH_3O)_2 C_6H_2 \cdot COO \cdot CH \cdot CH \cdot (N \cdot CH_3) \cdot (CH_2)_2 \cdot C_6H(O \cdot CH_3) \cdot (O_2 \cdot CH_2)$ .—Colorl. prisms.—*Sol.* C.; hot A.; sl. cold A., & E.; insol. W.—*Melt.* 171° C.—Antiperiodic.—*Uses*: Reported as better than quinine in some cases of interm. fever.—*Dose*  $1\frac{1}{2}$ –3 grains (0.1–0.2 Gm.) in form of its salts.—*Max. D.* 15–23 grains (1–1.5 Gm.) per day.

**Narcotine Hydrochloride Merck**.—Pure (35)

$C_{22}H_{23}NO_7 \cdot HCl$ .—Wh. powd.—*Sol.* W.—*Dose*: As of narcotine.

**Narcy**

(Ethylnarceine Hydrochloride Merck).— $C_{25}H_{31}NO_8 \cdot HCl$ .—Prism. need.—*Sol.* 120 W. at 15° C.; eas. A., C.; sl. E., B., benzin.—*Melt.* 205–206° C.—Antispasm.; Analg.—*Uses*: Nerv. cough, whoop.-cough, asthma.—*Dose* 1 grain (0.06 Gm.) p. d.; hypoderm.,  $1/6$ – $1/3$  grain (0.01–0.02 Gm.).

**Naregamia**

(Goanese Ipecac; Tinapani).—Root of *Naregamia alata*, Wight & Arnott. Meliaceae.—*Habit.*: East Indies; West Indies.—*Etymol.*: "Naregamia" is the Indian name of the plant.—*Constit.*: Naregamine (alkaloid); wax; fixed oil.—Mild Expector.; Hepat. Stim.; Emetic.—*Uses*: Coughs & colds, & in catarrh.—*Doses*: 5–10 m (0.3 to 0.6 Cc.) of 1:4 tinct. as expector.; 15–30 m (1–2 Cc.) as emetic.—*Fld.* extr., 1–2 m (0.06–0.12 Cc.) as expector.

**Nargol** (34)

Compound of silver & nucleic acid.—10% Ag.—*Sol.* W.—*Uses*: As of silver nitrate in 1:5 solut. ingonor.; 5% solut. in conjunctival inflam.; 5–10% oint. as stim. to slow-healing ulcers, &c.

*Narra*.—see **Pterocarpus Pallidus**

**Nasturtium**

(Water-cress; Water Radish; Nasturtion).—Herb of *Nasturtium officinale*, R. Brown. Cruciferae.—*Habit.*: Europe; Northern Asia; natur. in U. S. & elsewhere.—*Etymol.*: Lat. "nasus," nose, & "torquere," to twist, referring to the irritation of the nose the herb causes when chewed.—*Constit.*: Volat. oil.—Febrif.; Antineural.; Antiscorbut.; Depurat.; also used as salad.

**Natri**

Herb of *Solanum Tomatillo*, Solanaceae.—*Habit.* Chili.—*Etymol.*: "Natri" is the Chilian name

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 4=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



of the drug.—*Constit.*: Natrine (alkaloid).—*Antipyretic*.—*Uses*: Measles, scarlet fever, & o. eruptive fevers, in 1:10 decoct.

*Necta*.—see **Monsonia**

# **Nepeta**

(Catnip; Catmint).—Herb of *Nepeta Cataria*, L. Labiata.—*Habit.*: Europe; Asia; natur. in U. S.—*Etymol.*: Fr. "Nepete," the name of an Etrurian town, where the plant grew. "Cataria" was the Lat. name for the plant (catmint).—*Carmin.*; *Sed.*; *Emmen.*—*Uses*: Infantile colic, hyster, chlorosis, amenor., dysmenor., &c.—*Dose*: Fld. extr., 30–120 m (2–8 Ce.).

*Nerium*.—see **Oleander**

*Nerolin*.—see **Methyl Betanaphtholate**

# **Nessler's Reagent Merck.** — For ammonium salts

(Alkaline Solution Mercury & Potassium Iodide).—*Solut.* 10 Gm. potass. iodide, 5 Gm. mercuric chloride, & 32 Gm. KOH, in W. to make 200 Ce.—*Gives* a yellow color w. traces of ammonia or ammonium salts; w. larger quantities a ppt.

*Nettle*.—see **Lamium**

*Nettle, Horse*.—see **Solanum Carolinense**

*Nettle, Stinging*.—see **Urtica**

# **Neurine Merck.**—25% Solution (400

(Vinyltrimethyl Hydroxide).—*Ident.* w. Trimethylvinyl Ammonium-Hydroxide.—25% aq. solut. of an oxygen-containing ptomaine.—*Constant decomp.* prod. of decomposing animal tissue.— $C_5H_{13}NO$ , or,  $OH.N(CH_3)_3.CH:CH_2$ .

# **Neurine Chloride Merck** (3000

$C_2H_5.N:(CH_3)_3Cl$ .—Yellowish mass.—*Sol.* W.

# **Neurodin** (40

(Acetylparaoxyphenylurethane Merck).—*Deriv.* of amidophenol & ethylurethane).— $C_{11}H_{13}NO_4$ , or,  $C_6H_4.(OCO.CH_3).NH.CO.O.C_2H_5$ .—*Colorl.* cryst.—*Sol.*, sl. W.—*Melt.* 87° C.—*Antineural.*; *Antipyr.*—*Uses*: Sciatica, rheumatic pains, migraine, tic douloureux, locomotor ataxia, &c. As antipyr. in var. forms of fever.—*Dose* 15–23 grains (1–1.5 Gm.) as antineural; 5–10 grains (0.3–0.6 Gm.) as antipyr., several t. p. d.

# **Neuronal**

(Bromdiethylacetamide; Diethylbromacetamide).— $Br(C_2H_5)_2CO.NH_2$ .—Wh., cryst. powd.; camph. odor; bitter, cooling taste.—*Sol.* A., E., oils, abt. 115 W.—*Melt.* 66–67° C.—*Hypn.*—*Uses*: Insomnia, conditions of great excitement.—*Dose* 8–30 grains (0.5–2 Gm.).

*Neurosin*.—see **Calcium Glycerinophosphate**

# **Neutral Red Grubler-Merck** (100

(Toluyene Red; Dimethylamidotoluphenazine Hydrochloride).—Dark-green powd.—*Sol.* A., & W.—*Uses*: Dyeing cotton.

*Neutral-Red Stain*.—see **Ehrlich's Neutral-Red Stain**

*New Blue*.—see **Phenyl Blue**

*New Green*.—see **Malachite Green**

*New Victoria Green*.—see **Brilliant Green**

*New Yellow*.—see **Diphenylamine Orange**

# **Nickel Merck.**—Highest Purity (30

*Etymol.*: Copper-nickel (native arsenical nickel) received the name "nickel," meaning "worthless," in disgust because it resembled copper in appearance, but instead of yielding copper, evolved vapors of arsenic.—*Metal*.—Ni.—*Lustr.* sl'y grayish, wh. metal; hard, ductile, malleable, tenacious.—*Sp. Gr.* 8.97–9.26.

**do. Merck.**—Anodes, cast

*Sizes*:  $4 \times 4 \times \frac{1}{8}$  in. ( $100 \times 100 \times 3$  Mm.);  $6 \times 3 \times \frac{1}{8}$  in. ( $150 \times 80 \times 4$  Mm.);  $8 \times 4 \times \frac{1}{8}$  in. ( $200 \times 100 \times 5$  Mm.).

**do. Merck.**—Anodes, forged

*Sizes*:  $12 \times 8 \times \frac{1}{12}$  in. ( $300 \times 200 \times 2$  Mm.);  $12 \times 8 \times \frac{1}{25}$  in. ( $300 \times 200 \times 1$  Mm.);  $8 \times 4 \times \frac{1}{12}$  in. ( $200 \times 100 \times 2$  Mm.);  $8 \times 4 \times \frac{1}{25}$  in. ( $200 \times 100 \times 1$  Mm.).

**do. Merck.**—Cubes, or granulated, 98 to 99% (2

Both cubes & granulated are used in electro-depositing nickel, making alloys such as argentan, Chinese silver, ferronickel, German silver, &c.; also in manuf. nickel vessels, nickel-plating sheet iron, medals, lightning-rod tips, type-metal casts, magnets for telegraph instruments, coins, &c.

**do. Merck.**—Sheets or Wire (4

# **Nickel Acetate Merck** (6

(Nickelous Acetate).— $Ni(C_2H_3O_2)_2 + 4H_2O$ .—Dark-green, cryst. crusts.—*Sol.* W.

# **Nickel Arsenate Merck** (10

(Nickelous Arsenate).— $Ni_2(AsO_4)_2 + 8H_2O$ .—Yellowish-green powd.—*Sol.*, in acids; insol. W.

# **Nickel Benzoate Merck** (5

(Nickelous Benzoate).— $Ni(C_2H_5O_2)_2 + aq$ .—Light-green powd.—*Sol.*, in ammonia.

# **Nickel Borate Merck** (10

(Nickelous Borate).— $Ni(BO_2)_2 + 2H_2O$ .—Apple-green powd.—*Insol.* W.—*Melts* to a hyacinth-colored glassy mass.

# **Nickel Bromide Merck** (6

(Nickelous Bromide).— $NiBr_2$ .—Yellow powd.—*Sol.* W., A., E.—*Nerve Sed.*—*Uses*: Epilepsy.—*Dose* 5–10 grains (0.3–0.6 Gm.).—*Max D.* 10 grains (0.6 Gm.) single; 23 grains (1.5 Gm.) p. d.

# **Nickel Carbonate Merck** (3

(Nickelous Carbonate).— $NiCO_3$  + more or less  $Ni(OH)_2$ .—Light-green powd.—*Sol.*, acids.—*Uses*: Techn., in nickel-plating.

**do. Merck.**—Highest Purity (6

# **Nickel Chloride Merck** (3

(Nickelous Chloride).— $NiCl_2 + 6H_2O$ .—Green,

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



monocl. cryst.—*Sol.* W., A.—Antisep.—*Uses*: Nickel-plating cast zinc; manuf. sympathetic ink.

**Nickel Chloride Merck.**—Pure cryst. (3)

do. Merck.—Highest Purity, free fr. Cobalt (10)

**Nickel Citrate Merck**

(Nickelous Citrate). —  $\text{Ni}_3(\text{C}_6\text{H}_5\text{O}_7)_2 + \text{aq.}$  — Green, deliq. powd.—*Sol.* W.—*Uses*: Techn., in nickel-plating.—*Caut.* Keep dry, fr. air.

**Nickel Cyanide Merck** (8)

(Nickelous Cyanide). —  $\text{Ni}(\text{CN})_2 + \text{aq.}$  — Apple-green powd.—*Sol.*, solut. potass. cyanide.

**Nickel Hydroxide Merck.**—Pure (9)

(Nickelous Hydroxide). —  $\text{Ni}(\text{OH})_2 + \text{H}_2\text{O.}$  — Apple-green powd.—*Sol.*, acids, ammonia, & soluts, ammonium salts; insol. W.

**Nickel Iodide Merck** (17)

(Nickelous Iodide).— $\text{NiI}_2$ .—Black, cryst. powd.—*Sol.* W., & in A. w. green color.

**Nickel Monoxide.**—see **Nickel Oxide, Green**

**Nickel Nitrate Merck.**—Pure (3)

(Nickelous Nitrate).— $\text{Ni}(\text{NO}_3)_2 + 6\text{H}_2\text{O.}$ —Emerald-green, monocl. prisms.—*Sol.* 2 W., 2 A.—*Uses*: In nickel-plating.—*Caut.* Keep well stop.

do. Merck.—Highest Purity, free fr. Cobalt (8)

**Nickel Oxalate Merck** (5)

(Nickelous Oxalate). —  $\text{NiC}_2\text{O}_4$ . — Light-green powd.—*Sol.*, acids; insol. W.

**Nickel Oxide Black Merck.**—Highest Purity (20)

(Nickelic Oxide; Nickel Peroxide, or Sesquioxide).— $\text{Ni}_2\text{O}_3$ .—Gray-black powd.—*Sol.*, acids.—*Uses*: In manuf. of oxygen.

do. Merck (4)

**Nickel Oxide Green Merck.**—Commercial (2)

(Nickelous Oxide; Nickel Monoxide, or Protoxide).— $\text{NiO.}$ —Green powd.; yellow when hot.—*Sol.*, acids.—*Uses*: Techn., in manuf. of nickel salts, & in painting on porcelain.

**Nickel Peroxide.**—see **Nickel Oxide, Black**

**Nickel Phosphate Merck** (4)

(Normal Nickel Orthophosphate).— $\text{Ni}_3(\text{PO}_4)_2 + 7\text{H}_2\text{O.}$ —Green powd.—*Sol.*, acids; insol. W.—*Uses*: On ignition yields "nickel yellow," a valuable yellow pigment used in oil- & water-colors; also for depositing a dark nickel coating on iron, copper, brass, & zinc.

**Nickel Protoxide.**—see **Nickel Oxide, Green**

**Nickel Sesquioxide.**—see **Nickel Oxide, Black**

**Nickel Sulphate Merck.**—Highest Purity (3)

(Nickelous Sulphate).— $\text{NiSO}_4 + 7\text{H}_2\text{O.}$ —Emerald-green cryst.; sweet, astring. taste.—*Sol.* 3 W.—Tonic; Sed.; Soporific.—*Uses*: Periodic headache.—*Dose*  $\frac{1}{2}$ –1 grain (0.03–0.06 Gm.) 3 t. p. d.—*Caut.* Keep well stoppered.

**Nickel Sulphate Merck** (2)

Techn., in nickel-plating, as mordant in dyeing & printing fabrics; blackening zinc & brass.

**Nickel Tartrate Merck** (5)

(Nickelous Tartrate). —  $\text{NiC}_4\text{H}_4\text{O}_6 + 5\text{H}_2\text{O.}$  — Light-green powd.—Alm. insol. W.

**Nickel & Ammonium Chloride Merck** (3)

$\text{NiNH}_4\text{Cl}_2 + \text{aq.}$ —Yellow powd.—*Sol.* W.—*Uses*: Techn., electro-plating metallic objects; also as mordant in dyeing.

**Nickel & Ammonium Citrate Merck** (8)

$\text{Ni}(\text{NH}_4)_2(\text{C}_6\text{H}_5\text{O}_7)_2 + 4\text{H}_2\text{O.}$ —Green powd.—*Sol.* W.—*Uses*: Techn., electro-plating, & as mordant in dyeing.

**Nickel & Ammonium Nitrate Merck** (6)

$\text{Ni}(\text{NO}_3)_2 \cdot 4\text{NH}_3 + 2\text{H}_2\text{O.}$ —Dark-blue cryst., loses ammon. in air.—*Sol.* W.—*Uses*: Techn., electro-plating metallic objects; in comb. w. gallic acid for dyeing hair & furs.—*Caut.* Keep well stop'd.

**Nickel & Ammonium Sulphate Merck** (1)

$\text{NiSO}_4 \cdot (\text{NH}_4)_2\text{SO}_4 + 6\text{H}_2\text{O.}$  — Monoclinic, green prisms.—*Sol.* W.—*Uses*: Techn., nickel salt most commonly used for electroplating.

**Nickel & Ammonium Tartrate Merck** (5)

$\text{Ni}(\text{NH}_4)_2(\text{C}_4\text{H}_4\text{O}_6)_2$ .—Green powd.—*Sol.*, hot W.

**Nickel & Cobalt Sulphate Merck** (7)

(Cobalto-nickelous Sulphate).— $\text{NiSO}_4 \cdot \text{CoSO}_4$ .—Cryst. mixt. of nickel sulphate & cobalt sulphate.—Orange-red powd. or cryst.

**Nickel & Potassium Cyanide Merck** (4)

$\text{Ni}(\text{CN})_2 \cdot 2\text{KCN.}$ —Orange-yellow, cryst. powd.—*Sol.* W.

**Nickel & Potassium Sulphate Merck** (4)

$\text{NiSO}_4 \cdot \text{K}_2\text{SO}_4 + 7\text{H}_2\text{O.}$ —Green powd.—*Sol.* W.

**Nickel & Thallium Sulphate Merck** (1500)

$\text{NiSO}_4 \cdot \text{Tl}_2\text{SO}_4 + \text{aq.}$ —Green cryst.—*Sol.* W.

**Nickelic & Nickelous Salts.**—see under **Nickel**

**Nicker Seed.**—see **Bonduc**

**Nicotiana.**—see **Tabacum**

**Nicotine Merck.**—Highest Purity (80)

(Betapyridyl-alpha-n-methylpyrrolidin; Nicotia). — Alkaloid fr. lvs. *Nicotiana Tabacum*, L. (Tobacco).— $\text{C}_{10}\text{H}_{14}\text{N}_2$ , or  $\text{N.C}_5\text{H}_4\text{CH}(\text{CH}_2)_3\text{N}(\text{CH}_3)$ .—Yellowish liq.; brown on expos.; exceedingly acid, burning taste (*dangerous* to taste pure).—Sp. Gr. 1.011 at 20° C.—*Sol.* W., A., E., oils, &c.—*Boil.* 247° C.—Local Irritant; Sed.—*Uses*: Intern., functional disturb. of heart, & chronic dermatoses.—Extern., hypoderm. in paral. of bladder. Antid. to strychnine.—*Dose*  $\frac{1}{100}$ – $\frac{1}{20}$  grain (0.001–0.003 Gm.) 1–2 t. p. d. in alcoh. solut.—*Inj.* in paral. of bladder, in form of solut.  $\frac{1}{2}$  grain; 5 fl. dr. (0.03 Gm.; 20 Ce.) of acacia mucilage 2 t. p. d.—*Antid.*, emetics,

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



stomach siphon, tannic acid 15 grains [0.3 Gm.] every 15 minutes), strychnine, external warmth, friction, brandy, ether (hypoderm.), &c.—*Caut.* Poison!

**Nicotine Merck.**—Crude (60

Abt. 75% alkaloid.—Brown liq.—*Sol.* W., A., E., C.—*Antiparasitic*.—*Uses*: Exterminating plant lice (using a 1.33% solut.); in itch-water of sheep (in 13% solut. diluted w. 80 vol. water; to destroy the itch-mite ova, the 13% solut. of nicotine is diluted w. 50 vol. water).

**Nicotine Hydrochloride Merck** (225

$C_{10}H_{14}N_2 \cdot 2HCl$ .—Long, fibrous, deliq. cryst.—*Sol.* W., A.

**Nicotine Salicylate Merck.**—White, cryst. (225

$C_{10}H_{14}N_2 \cdot C_{11}H_8O_4$ .—Wh. cryst.—*Sol.* W., A.—*Melt.* 118° C.—*Uses*: Scabies, & other parasitic, acute & chronic, itching skin diseases, in 0.1% oint. w. lanum. In veter. medicine in 1% oint. in sarcoptes itch.

**Nicotine Tartrate Merck** (225

$C_{10}H_{14}N_2 \cdot (C_4H_4O_6)_2 \cdot 2H_2O$ .—Reddish-wh., conglomerated, bunched cryst.—*Sol.* W.—*Pref.* to o. nicotine salts; more solub. & stable.—*Dose*: As of nicotine.

**Nigella Damascena**

(Fennel Flower; Bishop's Wort; Ragged Lady; Magnolia Seeds).—Seed of *Nigella damascena*, L. Ranunculaceae.—*Habit.*: Levant; cult. in Europe.—*Etymol.*: Lat. "niger," black, referring to the color of the seeds.—*Constit.*: Volat. & fixed oils; damascenine.—*Uses*: Galactag.

**Nigella Sativa**

(Nutmeg Flower; Small Fennel Flower; Black Cumin; Black Caraway).—Seed of *Nigella sativa*, L. Ranunculaceae.—*Habit.*: Germany; Mediterranean Region.—*Etymol.*: Lat. "niger," black, referring to the color of the seeds.—Rough, triangular, ovate; two surfaces flat & the third convex; extern., dull-black; intern., white & oleaginous; acid, somewh. spicy & pungent taste; aromat., nutmeg-like odor.—*Constit.*: Volat. & fixed oils; nigellin; melanthin; tannin.—Galactag.; Carmin.—*Uses*: In medicine, also in veterinary practice, & techn., as an ingredient in snuff tobacco.

**Nigrosine Merck.**—Alcohol-soluble (6

Variable acc. to process.—Black powd.—*Sol.* A.—*Uses*: Techn., dyeing silk, wool, leather, &c., blue-black color.—See also Induline, Alcohol-soluble.

**do. Merck.**—Benzin-soluble (8

(Blue Black).—Black powd.—*Sol.*, benzin.—*Uses*: Techn., in black spirit lacquers, varnishes, &c.

**do. Merck.**—Water-soluble (6

Sodium salts of various spirit-soluble indulin-sulphonic acids.—Black mass or powd.—*Sol.* W.

& A.—*Uses*: Nigrosine ink & dyeing wool, silk, & leather. Str. aqu. solut. used for stain bacteriol. sections after washed in alcohol.—See also Induline, Water-soluble.

**Nikiforoff's Borax-Carmine**

15 Gm. carmine, 500 Cc. 5% aqu. solut. borax, & ammonia, the whole boiled down to 250 Cc. & acetic acid added to just discharge the cherry-red color.—*Uses*: Staining nuclei & whole tissue.

**Niobium Merck** (8500

(Columbium).—*Etymol.*: So named by H. Rose in 1844 for Niobe, the daughter of Tantalus, in order to denote the similarity of the element to tantalum.—*Metal*.—Nb.—Steel-gray, lustr. metal.—*Sp. Gr.* 7.0-7.37.—Of no technical value as yet.

**Niobium Chloride Merck.**—Sublimed (2500

(Niobium Pentachloride).— $NbCl_5$ .—Yellowish-wh., v. deliq., cryst. powd.; evolves fumes of hydrochl. acid on expos.—*Sol.* A., conc. hydrochl. acid.—*Caut.* Keep well stoppered.

*Niobium Pentachloride.*—see **Niobium Chloride**

*Niobium Pentoxide.*—see **(Acid) Niobic Anhydride**

**Niobium & Potassium Fluoride Merck** (450

$NbOF_3 \cdot 2KF \cdot H_2O$ .—Wh., glistening, mono-symmetric leaflets; fatty to touch.—*Sol.*, eas. in W.

**Nirvanin** (70

(Diethylglycocolparamido-oxybenzoylmethyl-ester Hydrochloride).— $(OHC_6H_3(COOCH_3)_2) \cdot NH \cdot CO \cdot CH_2 \cdot N \cdot (C_2H_5)_2 \cdot HCl$ .—Colorl. cryst.—*Sol.*, eas. W.—Local Anesthetic; stated less toxic than orthoform.—*Appl.*, mostly in 0.2-0.5% solut.; in dentistry, 5% solut.; also by injection (up to 8 grains [0.5 Gm.] per dose).

*Nitr.*—see **Potassium Nitrate**

**Nitraniline (Meta-) Merck.**—Pure (18

Fr. aniline by nitration.— $C_6H_6N_2O_2$ , or,  $C_6H_4(NO_2)NH_2$  [3:1].—Yellow need.; sweet, burning taste.—*Sol.* A., B.; sl. W.—*Melt.* 110° C.—*Boil.* 285° C.—*Uses*: Color test for pine wood, &c.

**do. Merck.**—Commercial (6

Yellow powd.—*Sol.* A.; sl. W.

**Nitraniline (Ortho-) Merck** (35

$C_6H_6N_2O_2$ , or,  $C_6H_4(NO_2)NH_2$  [2:1].—Orange-red need.—*Sol.* A., E.; hot W.—*Melt.* 71° C.

**Nitraniline (Para-) Merck.**—Pure (25

$C_6H_6N_2O_2$ , or,  $C_6H_4(NO_2)NH_2$  [4:1].—Long, yellow, monocl. need.—*Sol.* W., A.—*Melt.* 147° C.

**do. Merck.**—Commercial (6

Yellow powd.—*Sol.* W., A.

**Nitranisol (Ortho-) Merck** (20

(Methyl Ester of Orthonitrophenol).—Fr. nitrating anisol, or methylating orthonitrophenol.— $C_7H_7NO_3$ , or,  $C_6H_4(NO_2)(OCH_3)$  [2:1].—Yellow-

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



ish, oily liq. at ordinary temp.—*Sol.* A., E.—*Solidif.* at 0° C.—*Melt.* 9° C.—*Boil.* 277° C. at 734 Min.

### Nitrobenzaldehyde (Meta-) Merck (20)

Fr. solut. benzoic aldehyde in mixt. fum.  $\text{HNO}_3$  &  $\text{H}_2\text{SO}_4$ — $\text{C}_6\text{H}_5\text{NO}_2$ , or,  $\text{C}_6\text{H}_4(\text{NO}_2)\text{CHO}$ [3:1].—*Lustr.* need.; odor of benzaldehyde.—*Sol.* A., E., C.—*Melt.* 58° C.

### Nitrobenzaldehyde (Ortho-) Merck (50)

$\text{C}_6\text{H}_5\text{NO}_2$ , or,  $\text{C}_6\text{H}_4(\text{NO}_2)\text{CHO}$ [2:1].—Yellow need.—*Sol.* A., E., B.; sl. W.—*Melt.* 45–46° C.

### Nitrobenzaldehyde (Ortho-) Merck.—Reagent(75)

$\text{C}_6\text{H}_4(\text{NO}_2)\text{CHO}$ .—Light-yellow need.—*Sol.*, eas. A., E.—*Melt.* 45–46° C.—*Uses:* Detect. urea, acetone, &c.

### Nitrobenzaldehyde (Para-) Merck (35)

$\text{C}_6\text{H}_4(\text{NO}_2)\text{CHO}$ [4:1].—Colorl. prisms.—*Sol.* A.; sl. in W. & E.—*Melt.* 106° C.

### Nitrobenzene Merck (1)

(Nitrobenzol; Essence of Mirbane; Oil of Mirbane).—Fr. benzene, by nitric acid.— $\text{C}_6\text{H}_5\text{NO}_2$ .—Colorl. to yellowish, oily liq.; odor & taste of oil of bitter almonds.—*Sp. Gr.* 1.187 at 15° C.—*Sol.* A., E., oils, &c.—*Boil.* 209° C.—*Uses:* Techn., perfumery instead of essent. oil almonds, & aniline industry in manuf. fuchsine, nitro-toluene, &c.—*Caut.* Poison! Never use internally.—*Antid.*, stomach pump, artif. respir., &c.

do. Merck.—From Benzene, cryst. (2)

Nitrocarbol (or -inol).—see Nitromethane

Nitrochloroform.—see Chloropicrine

Nitrodioxyquinoline.—see Acid Quinolic

### Nitroethane Merck (375)

React.-prod. cold ethyl iodide w. silver nitrite.— $\text{C}_2\text{H}_5\text{NO}_2$ .—Oily liq.; pleas. odor.—*Sol.* A., E., C.—*Sp. Gr.* 1.0561 at 15° C.—*Boil.* 114° C.

### Nitroglucose

Fr. glucose, by nitric & sulphuric acids.—Marketed in 1:20 alcoholic solut., because substance very explosive.—Arterial Stimulant.

do. Merck.—Solution (4)

5% aqu. solut.—Arterial Stimulant.—*Uses:* Epilepsy, angina pectoris, & cardiac weakness.—*Dose*  $\frac{1}{4}$ –1 M (0.015–0.06 Cc.).

Nitroglycerin, Solution.—see Spirit Glyceryl Trinitrate

### Nitroguanidine Merck (30)

$\text{NH}_2\text{C}(\text{NHNO}_2)\text{NH}_2$ .—Yellowish need.—*Sol.*, eas. solut. KOH; sl. W., & A.; insol. E.

### Nitromethane Merck (125)

(Nitrocarbol; Nitrocarbinol).— $\text{CH}_3\text{NO}_2$ .—Heavy, colorl. liq.; peculiar odor.—*Sol.* A., E.—*Sp. Gr.* 1.144 at 15° C.—*Boil.* 101° C.

Nitromethylene Green.—see Methylene Green

### Nitron Merck.—Reagent (150)

(1,4 Diphenyl-3,5 endanilodihydrotriazole).— $\text{C}_{20}\text{H}_{16}\text{N}_4$ , or,  $\text{C}_6\text{H}_5\text{N}_2\text{CH}(\text{N}(\text{C}_6\text{H}_5)_2\text{C}:\text{N})$ .—Yellow, lustrous leaflets or anorph. powd.—*Sol.* 5% acetic acid; C., acetone, acetic ether; in A. w. part. decomp.; insol. W.—*Melt.* 189° C. w. decomp.—*Uses:* In chem. analysis for determining nitric acid (with which it yields an insoluble nitrate) according to Busch's method.

Note.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### Nitronaphthalene (Alpha-) Merck.—Pure (2)

(Alphamononitronaphthalene).—Fr. naphthalene, by direct nitration.— $\text{C}_{10}\text{H}_7\text{NO}_2$ .—Yellow cryst.—*Sol.* A.—*Melt.* 56° C.—*Boil.* 304° C.

### do. Merck.—Commercial (1)

Yellow, crumbly mass.—*Sol.*, eas. A., liquid paraffin oil, petroleum, &c.—*Uses:* To deprive oils, particularly petroleum, of their fluorescence; 2–3 parts suffice for 1000 parts oil.

### Nitropentane Merck (700)

Fr. isoamyl iodide, by silver nitrate.— $\text{C}_5\text{H}_{11}\text{NO}_2$ , or,  $\text{CH}(\text{CH}_3)_2\text{CH}_2\text{CH}_2\text{NO}_2$ .—Colorl. liq.; odor of fusel oil.—*Sol.* A., E.—*Boil.* 150–160° C.

### Nitrophenol (Meta-) Merck (225)

(Metanitrophenol).—Fr. metanitroaniline, by the diazoreact.— $\text{C}_6\text{H}_5\text{NO}_3$ , or,  $\text{C}_6\text{H}_4(\text{NO}_2)\text{OH}$ [3:1].—Yellow cryst.—*Sol.*, hot W., A., & benzene.—*Melt.* 96° C.—*Boil.* 194° C. at 70 Mm.

### Nitrophenol (Ortho-) Merck (5)

(Orthonitrophenol).— $\text{C}_6\text{H}_5\text{NO}_3$ , or,  $\text{C}_6\text{H}_4(\text{NO}_2)\text{OH}$ [2:1].—Light-yellow need. or prisms; peculiar arom. odor.—*Sol.* A., E.; hot W.—*Melt.* 45° C.—*Boil.* 214° C.

### Nitrophenol (Ortho-) Merck.—Reagent (12)

$\text{C}_6\text{H}_4(\text{OH})(\text{NO}_2)$ .—Sulphur-yellow need. or prisms.—*Sol.*, eas. A., E.; freely hot W.; sl. cold W.—*Melt.* 44–45° C.—*Uses:* Detect. K; indicator in water analysis.

### Nitrophenol (Para-) Merck (4)

(Paranitrophenol).—Fr. nitrating phenol in cold.— $\text{C}_6\text{H}_5\text{NO}_3$ , or,  $\text{C}_6\text{H}_4(\text{NO}_2)\text{OH}$ [4:1].—Colorl. cryst.—*Sol.* A., E., & benzene.—*Melt.* 114° C.

### Nitrophenol (Para-) Merck.—Reagent (12)

Colorl. need., or monoclin. prisms.—*Sol.*, eas. A.; moderately in W.—*Melt.* 112° C.—*Uses:* Indicator (alkalies = yellow; acids = colorless).

### Nitropropane Merck (500)

Fr. propyl iodide, by silver nitrite.— $\text{C}_3\text{H}_7\text{NO}_2$ , or,  $\text{CH}_2\text{CH}_2\text{CH}_3\text{NO}_2$ .—Oily liq.—*Sp. Gr.* 1.0108 at 15° C.—*Sol.* E., A.—*Boil.* 125–127° C.

### Nitrosobetanaphthol Merck (25)

(Alphanitrosobetanaphthol).—React.-prod. of betanaphthol, sodium nitrite & zinc chloride.— $\text{C}_{10}\text{H}_7\text{NO}_2$ , or,  $\text{C}_{10}\text{H}_6(\text{NO})\text{OH}$ .—Orange-brown cryst.—*Sol.* E.; hot A., & B.—*Melt.* 109° C.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Nitrosobetanaphthol Merck.**—Reagent (30)  
 $C_{10}H_8(NO)(OH)$ .—Orange-brown cryst.—*Sol.* v. eas. E., B., hot A.; v. diff. boil. W.; insol. cold W.—*Melt.* 109.5° C.—*Uses:* Quantitative separ. metals, e.g., Ni & Co.

**Nitrosodiethylin Merck** (140)  
 (Diethylnitrosamine).—Deriv. of diethylamine.— $C_4H_{10}N_2O$ , or,  $(C_2H_5)_2N(NO)$ .—Yellowish oil.—*Sol.* A., E.—*Sp. Gr.* 0.951 at 17° C.—*Boil.* 177° C.

**Nitrosodimethylaniline Merck** (25)  
 (Paranitrosodimethylaniline).—Fr. dimethylaniline hydrochloride, by nitrous acid.— $C_6H_9N_2O$ , or,  $C_6H_7(NO)N(CH_3)_2$ .—Green plates or leaflets.—*Sol.* A., E.—*Melt.* 85° C.

**Nitrosodimethylaniline Hydrochloride Merck** (20)  
 $C_6H_9N_2O \cdot HCl$ .—Pale-yellow need.—*Sol.* W.

**Nitrosodimethylin Merck** (140)  
 (Dimethylnitrosamine).—Deriv. of dimethylamine.— $C_2H_6N_2O$ , or,  $(CH_3)_2N(NO)$ .—Yellowish oil.—*Sol.* A., E.—*Boil.* 148° C. at 724 Mm.

**Nitrosoethylaniline Merck** (90)  
 Fr. ethylaniline, by nitrous acid.— $C_8H_{10}N_2O$ , or,  $C_6H_5 \cdot N(C_2H_5) \cdot NO$ .—Yellowish oil; odor of bitter almonds.—*Sol.* A.

**Nitrosophenol (Para-) Merck** (150)  
 (Quinone Monoxime; Paranitrosophenol).—Fr. phenol, by nitrous acid.— $C_6H_4(NO)OH$ , or,  $O_2C_6H_3N \cdot OH$ .—Brownish or greenish leaflets.—*Sol.* E., acetone, aqueous alkal. solut.—Decomp. 125° C., without melt.

**Nitrotoluene (Meta-) Merck.**—Highest Purity (20)  
 (Metanitrotoluol).—Fr. ortho-, or para-, toluidine by nitration followed by elim. of  $NH_2$ .— $C_7H_7NO_2$ , or,  $C_6H_4 \cdot CH_3(NO_2)[1:3]$ .—Yellow cryst., or liquid above 16° C.—*Sp. Gr.* 1.164 at 17° C.—*Sol.* A., E., B.—*Boil.* 230° C.

do. Merck.—Commercial (4)

**Nitrotoluene (Ortho-) Merck.**—Liquid (4)  
 (Orthonitrotoluol).—Fr. toluene by nitration.— $C_7H_7NO_2$ , or,  $C_6H_4 \cdot CH_3(NO_2)[1:2]$ .—Yellowish liq.—*Sp. Gr.* 1.168 at 15° C.—*Sol.* A., E., B., C., & petroleum ether.—*Boil.* 218° C.

**Nitrotoluene (Para-) Merck** (4)  
 (Paranitrotoluol).—Fr. toluene by nitration.— $C_7H_7NO_2$ , or,  $C_6H_4 \cdot CH_3(NO_2)[1:4]$ .—Yellowish cryst.—*Sol.* A., E., B.—*Melt.* 54° C.—*Boil.* 234–238° C.

## Njimo

(Doundaké; Guinea Peach; African Cinchona).—Wood of *Sarcocephalus esculentus*, Sab. Rubiaceæ.—*Habit.*: Trop. West Africa (Senegal; Kamerun; Congo States).—*Etymol.*: "Njimo" is the African name of the plant.—*Constit.*: Bitter principle; resin; tannin.—*Febrif.*; *Stomachic.*; Astring.

**Nosophen** (30)  
 (Tetraiodophenolphthaleïn; Iodophen).—From phenolphthaleïn, by act. of iodine.— $C_{20}H_{10}I_4O_4$ , or,  $(C_6H_4I(OH))_2 \cdot C_2H_4COO$ .—Light-yellow powd.; odorl.; tastel.—60% I.—*Sol.* alkal. solut., E., C; insol. W., & acids.—*Melt.* 225° C., with decomp.—Antiseptic, like iodoform.—*Uses:* *Extern.*, rhinitis, balanoposthitis, eczema, diph., & local syphilitic affections in the mouth.—*Intern.*, in intest. catarrh.—*Dose* 5–8 grains (0.3–0.5 Gm.).—*Appl.*, powd., pure or diluted.

**Nosophen-Sodium.**—see Antinosin

**Novargan** (25)  
 A silver albuminate, cont. 10% Ag.—Fine yellow powd.—*Sol.*, eas. W.—Antisep.; Bactericide.—*Uses:* As of organic silver compounds (largin, protargol, &c.).

**Novocaine** (65)  
 (Para-aminobenzoylethylamin ethanol Hydrochloride).— $NH_2 \cdot C_6H_4 \cdot COO \cdot C_2H_4 \cdot N(C_2H_5)_2 \cdot HCl$ .—odorl. cryst.—*Sol.* 1 W.; 30 A.—*Melt.* 150° C.—Local Anesth. like cocaine.—*Uses:* Minor surgery, dentistry, &c.—*Appl.* 0.25–2% solut., somet. w. supracerebral preparations.—*Inj.*,  $\frac{1}{6}$ – $1\frac{1}{2}$  grains (0.01–0.1 Gm.) in 1–2% solut.

**Nucitc.**—see Inosite

**Nuclein Merck.**—From Yeast (110)  
 Fr. cell-substc. of plants & animals, or fr. yeast.— $C_{25}H_{40}N_9P_3O_{22}(?)$ .—Amorph. substc. rich in phosphorus. Most probably a compound of nucleinic acid & albumin, but containing also carbohydrates. Phosphoric acid is set free by boiling w. alkalies.—Grayish-wh., amorph. powd.—*Sol.*, dil. alkal. soluts.; sl. in W., & in mineral acids; insol. A., E.—Antisep.; Germicide. Possesses antipyretic properties like tuberculin Koch, & causes hyperleucocytosis.—*Uses:* Indol. ulc. of leg, tonsil., false diphth., masked tuberculosis, typhoid, pneum., & puerperal infection.—*Inj.*, hypoderm., 8–15 ml (0.5–1 Cc.) of 0.5% aq. alkal. solut. (w. carbolic acid added) in lupus.—*Dose* 8 grains (0.5 Gm.) 4–6 t. p. d.

do. Horbaczewski-Merck (100)

From the spleen substance by digestion w. pepsin & hydrochloric acid.—Brownish-gray powd.—*Sol.*, in alkal. solut.—*Uses*, &c.: As of nuclein fr. yeast.

**Nucleohiston Merck** (2500)  
 Fr. thymus glands of calves.—Yellowish powd.—*Sol.*, alkal. soluts.—Considered to be the physiologically active constituent of the leucocytes.

**Nutgall.**—U. S. P.

(Galla; Galls; Aleppo-, Turkey-, or Mecca Galls).—Exerescence on *Quercus lusitanica*, Lamarek (Q. infectaria Oliv.). Cupuliferæ, caused by the punctures and deposited ova of *Cynips tinctoria*, Olivier.—*Habit.*: Levant

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



(Syria; Turkey).—*Etymol.*: Fr. Lat. "galla" (Pliny). "Lusitanica," of or pertaining to Lusitania, ancient name of the countries bordering the Mediterranean where the tree is native.—*Constit.*: Gallie, tannic, & ellagic acids; mucilage; sugar; resin.—*Astring.*—*Uses: Techn.*, for manuf. of tannin, ink, & for dyeing, & tanning.—*Doses*: 5–30 grains (0.3–2 Gm.).—*Tinct.*, 20–40  $\text{m}$  (1.3–2.6 Cc.); also applied to frostbites, & in 2–5:100 solut. as inject. in atonic ulcers.

### Nuttall, Chinese

Exerescence on the leaf or leaf-stalk of *Rhus semialata*, Murray (Anacardiaceæ) caused by the punctures of *Aphis chinensis*, Bell (Hemiptera).—*Habit.*: China.—*Etymol.*: See preceding.—*Constit.*: Tannin.—*Uses*: Manuf. tannin, ink, &c.

*Nutmeg.*—see **Myristica**

*Nutmeg Butter.*—see **Oil Nutmeg, Expressed**

*Nutmeg Flower.*—see **Nigella Sativa**

### Nutrose (5)

(Casein-Sodium).—Sodium compound of casein.—Wh. powd.—*Sol.* W.—*Dietetic.*—*Uses*: As nutrient like peptone.—*Dose*: Teaspoonful several t. p. d. in milk, chocolate, or bouillon.

*Nux Moschata.*—see **Myristica**

### Nux Vomica.—U. S. P.

(Quaker Buttons; Bachelor's Buttons; Poison Nut; Dog Buttons; Vomit Nut).—Dried, ripe seed of *Strychnos Nux-Vomica*, L. Loganiaceæ.—*Habit.*: Southern Asia; northern Australia.—*Etymol.*: Grk. "strychnos," night-shade, the equivalent of the Lat. "solanum," used anciently for several poisonous plants. Or, perhaps, fr. Grk. "strephein," to twist or turn, referring to the contortions caused by the plant. Lat. "nux," nut, & "vomica," emetic, refer to the action of the drug.—*Constit.*: Strychnine; brucine; loganin; igasuric acid; proteids.—*Tonic*; *Motor Excitant*; *Spasmodic*; *Stomachic*; *Cardiac*, *Muscular*, & *Nervous Stim.*—*Uses*: Atonic dyspep., neurasthenia, chron. constip., neural., paralysis, &c.—*Antidote* to poison by opium, chloral, &c. narcotics.—*Doses*:  $\frac{1}{2}$ –5 grains (0.03–0.3 Gm.).—*Alcoh. extr.*,  $\frac{1}{8}$ – $\frac{1}{2}$  grain (0.008–0.03 Gm.); *Max. D.* 1 grain (0.06 Gm.) single, 3 grains (0.2 Gm.) daily.—*Fld. extr.*, 1–4  $\text{m}$  (0.06–0.25 Cc.); *Max. D.* 6  $\text{m}$  (0.36 Cc.) single, 12  $\text{m}$  (0.75 Cc.) daily.—*Aqu. extr.*,  $\frac{1}{2}$ –3 grains (0.03–0.2 Gm.).—*Tinct.*, 5–15  $\text{m}$  (0.3–1 Cc.).—*Antid.*, As of strychnine.

### Nylander-Almen's Reagent.—For glucose

Solut. 2 Gm. bismuth subnitrate & 4 Gm. Rochelle salt in 100 Gm. 8% solut. NaOH.—On boiling reagent w. a solut. cont. glucose, a black ppt. forms.

*Nyssa Aquatica.*—see **Tupelo**

## O

*Oak Acorns.*—see **Acorn**

*Oak Agaric.*—see **Polyporus**

*Oak, White.*—see **Quercus**

*Oat, Common.*—see **Avena**

### Obermayer's Reagent.—For indican

Solut. (1), 20% solut. lead acetate.—Solut. (2), solut. 1–2 ferric chloride in 500 fuming HCl.—The chloroformic extract of the suspected urine is shaken w. the soluts. in succession; if indican present, a blue ppt. of indigo-blue forms.

### Ocimum

(Sweet Basil; Basil).—Lvs. & tops of *Ocimum Basilicum*, L. Labiate.—*Habit.*: Asia; Africa; cultiv. in gardens.—*Etymol.*: Fr. Grk. "basilikon," royal, referring to the beauty, & curative power, of the plant. "Ocimum," fr. "okimon," the Grk. name of the plant.—*Constit.*: Volat. oil; tannin.—*Uses*: Cold-water infus. used as a mucilaginous demulcent in catarrhal inflam.

*Oelene.*—see **Caprylene**

### Octyl Iodide Merck.—Secondary (50)

Fr. methylhexylcarbinol, by iodine w. phosphorus.— $\text{C}_8\text{H}_{17}\text{I}$ , or,  $\text{CH}_3\text{CH}_2\text{C}_6\text{H}_{13}\text{I}$ .—Oily liq.—*Sol.* A., E.—*Sp. Gr.* 1.310 at 16° C.—*Boil.* 200° C., w. decomp.—*Caut.* Keep in amber bot.

*Octylene, Normal.*—see **Caprylene**

*Oculi Cancrorum.*—see **Crabs' Eyes**

### Odda

Infant food & nutrient (for invalids & debilitated persons as well) prepared fr. skim-milk, sugar, & oat- & wheat flours. The butter is replaced by cacao butter & the fat of egg yolks.—Well borne & eas. digested.

### Oenanthal Merck (35)

(Heptioic Aldehyde; Oenanthol; Oenanthaldehyde; Heptanal).—Fr. castor oil by heat. & fract. distil.— $\text{C}_7\text{H}_{12}\text{O}$ , or,  $\text{C}_6\text{H}_{13}\text{CHO}$ .—H'ly refracting, colorl. liq.; aromatic odor.—*Sp. Gr.* 0.822 at 15° C.—*Sol.* A., E.; sl. W.—*Boil.* 155° C.—*Caut.* Keep well stoppered.

*Oenanthaldehyde.* } —see **Oenanthal**  
*Oenanthol.* }

### Oenothera

(Evening Primrose; Cure-all; Sundrop).—Lvs. of *Oenothera biennis*, L. Onagraceæ.—*Habit.*: Labrador to Florida, west to Rocky Mts.—*Etymol.*: Grk. "oinothera," night candle, referring to the spiked, yellow, nocturnal flowers. "Biennis" refers to the biennial character of the plant.—*Constit.*: Oenotherin(?); tannin; mucilage.—*Sed.*: Antispasmodic.—*Uses: Intern.*, in whoop-cough, & spasmodic asthma.—*Extern.*, in tetter & other cutan. affect. of infants, & in ulcers.—*Dose*: Fld. extr., 30–60  $\text{m}$  (2–4 Cc.).

**Comparative Values** (see Preface, page v): 1= Cheap Articles; 2= Salol; 3= Gualiacol; 4= Potassium Iodide; 5= Iodoform; 11= Silver Nitrate; 25= Strychnine; 44= Veratrine; 55= Morphine Sulphate; 225= Aconitine; 570= Gold Tribromide; 1111= Eserine Sulphate; 1710= Hyoscyamine; 2565= Homatropine Hydrobromide; 3000 & over= Very Expensive Articles.



*Oenipos*—*Adeps Lana*.—see **Lanum, Anhydrous**

*Ohio Buckeye*.—see **Æsculus Glabra**

# **Oil Absinthium**

(Oil Wormwood).—Volat. oil fr. lvs. & tops *Artemisia Absinthium*, L.—Brownish-green liq.—*Constit.*: Pinene,  $C_{10}H_{16}$ ; absynthol,  $C_{15}H_{24}O$ .—*Sp. Gr.* 0.925–0.955.—*Sol.* A, E.—*Anesth.*: Analg.; *Tonic*.—*Uses*: *Intern.*, cerebral exhaustion, debility, & dyspep.—*Extern.*, in rheum. & neural.—*Dose* 1–3 ℥ (0.06–0.2 Ce.).

*Oil Allspice*.—see **Oil Pimenta**

# **Oil Almond, Bitter, Merck. True** (9)

Essential oil fr. seed of *Amygdalus communis*, L., var. *Amara* (bitter almonds) & other seeds containing amygdalin. Contains 2 1/2% hydrocyanic acid.—Yellowish, v. refractive liq.; aromatic odor; bitter, acrid, burning taste.—*Sol.*, all prop., A, E.; 300 W. at 15° C.—*Sp. Gr.* 1.015–1.060 at 25° C.—*Boil.*, abt. 180° C.—*Opt.*, inactive.—*Nerve Sedative*.—*Uses*: *Intern.*, cough remed.—*Extern.*, as appl. in torpid corneal ulcers; in neuralgia, to allay severe itching. Also as flavor for cosmetics; the oil free fr. HCN is preferably used, particularly in liqueurs.—*Dose* 1/6–1/2 ℥ (0.01–0.03 Ce.).—*Max. D.* 3/4 ℥ (0.05 Ce.) single; 2 1/2 ℥ (0.15 Ce.) p. day.—*Antid.*, emetics, stomach siphon, ammonia, brandy, iron persulphate.—*Caut.* Poison!

## **do. Merck.—Free fr. HCN** (16)

Free fr. hydrocyanic acid.—Less poison, substit. for official prep.—*Dose* 1/2–2 ℥ (0.03–0.12 Ce.).—*Caut.* Does not keep well.

*Oil Almond, Essential, Artificial*.—see **Benzaldehyde**

# **Oil Almond, Expressed.—U. S. P.**

(Sweet Oil Almonds).—Fixed, non-drying oil fr. seeds of *Amygdalus communis*, bitter or sweet.—*Sp. Gr.* 0.915–0.920 at 15° C.; (0.91–0.915 at 25° C.—U. S. P.).—*Misc.* E., C, B.; sl. A.—*Demulc.*; *Cath.*; *Nutrient*.—*Uses*: *Intern.*, bronch. in mucilage or egg-yolk emulsion; as cath. to children.—*Extern.*, slight burns, blisters or injuries.—*Techn.*, in perfumery, & as lubricant for delicate mechanisms (watches, &c.).—*Dose* 1–8 dr. (4–30 Ce.).

*Oil Almond, Sweet*.—see **Oil Almond, Expressed**

# **Oil Amber.—Rectified**

Fr. the crude oil.—Yellowish-brown, volat. oil; penetrating odor.—*Sol.* 10–12 A.—*Sp. Gr.* 0.920 at 15° C.—*Antispasm.*; *Stim.*; *Diur.*; *Rubefacient*.—*Uses*: *Intern.*, hyst., intest. irritat., infantile convuls., amenor., whoop-cough, &c.—*Extern.*, linim.; rheum.; also for toothache & earache.—*Dose* 5–15 ℥ (0.3–1 Ce.).—*Caut.* Keep fr. air. Turns dark w. age.

## **do.—Crude**

Tar-like product fr. amber by destruct. distil.—Brown oil; very disagreeable odor.—*Sol.* A, E.—*Rubef.*—*Uses*: *Extern.*, rheum. & neural.

# **Oil Angelica. 30-fold, free fr. terpenes**

Terpene-free oil fr. root of *Angelica Archangelica*, L.—Yellow liq.—*Sp. Gr.* 0.85–0.90 at 15° C.—*Uses*: *Arom.*, *Stim.*—*Dose* 1–3 ℥ (0.06–0.2 Ce.).

*Oil Aniline*.—see **Aniline**

# **Oil Animal Merck. Twice rectified** (5)

(Bippel's Oil).—Obtained by destruct. distil. of bones, horn, gristle, &c.—Composed of hydrocarbons, pyridine bases, & amines.—Brown liq. of repulsive odor.—*Sol.* 80 W.—*Uses*: *Extern.*, for parasitic skin dis.—*Intern.*, occasionally as vermifuge, & in hysteria.—*Dose* 5–20 ℥ (0.3–1.3 Ce.) in gelat. caps. or gelat.-coated pills.—Formerly employed in veterinary medicine as an antisept., stim., anthelmint., & emminative.—Chiefly used f. keeping flies fr. food of cattle.

# **Oil Anise**

Essential oil fr. fruit *Pimpinella Anisum*, L. (Anise), or fr. fruit of *Illicium verum*, Hook. fil. (Star Anise).—Chief constit., Anethol,  $C_{10}H_{12}O$ .—Colorl. or pale-yellow, thin liq.—*Sp. Gr.* 0.980–0.990 at 15° C.; (0.975–0.988 at 25° C., U. S. P.).—Solidifies at +14° to +19° C.—*Sol.* A, E., C.—*Carmin.*; *Antisept.*—*Uses*: Increase flow of milk, & relieve flatulent colic.—*Dose* 1–5 ℥ (0.06–0.3 Ce.).

## **do.—2-fold, free fr. terpenes**

Terpene-free essential oil anise.—*Uses*: Perfumery, & in manuf. liqueurs.

# **Oil Anise, Star**

Essential oil fr. fruit of *Illicium anisatum*, L.—Colorl. liq.—*Sol.* A, E.—*Sp. Gr.* 0.980–0.990 at 15° C.—Solidif. at 10–15° C.—Known constituents: Anethol,  $C_{10}H_{12}O$  (chiefly), with pinene, phellandrene, safrol, hydroquinone ethyl-ester.—*Uses*: Chiefly in manuf. of liqueurs.

## **do.—2-fold, free fr. terpenes**

Terpene-free essent. oil fr. fruit *Illicium anisatum*, L.—Chief constit., Anethol,  $C_{10}H_{12}O$ .

# **Oil Anthemis**

(Oil Roman Chamomile).—Volat. oil fr. heads *Anthemis nobilis*, L.—Yellow liq.—*Sol.* A.—*Sp. Gr.* 0.905–0.915 at 15° C.—*Constit.*: Angelica-tiglin, isobutyric-acid ester, & anthemol.—*Tonic*; *Arom.*; *Stomachic.*—*Uses*: Enfeebled digest. & for flatulent colic.—*Dose* 1–2 ℥ (0.06–0.12 Ce.).

*Oil Ants, Artificial*.—see **Furfural**

*Oil Apple*.—see **Amyl Valerate**

# **Oil Arachis**

(Peanut Oil).—Expressed fr. fruit *Arachis hypogaea*, L.—Bland, straw-yellow to wh. oil; nutty odor & taste; cont. arachic acid.—*Sol.* B, E., C,  $CS_2$ ,  $CCl_4$ , petrol. E.; oils; sl. A.—*Sp. Gr.* 0.916–0.922 at 15° C.—*Uses*: *Pharm.* & *techn.*

*Oil Arbor Vitæ*.—see **Oil Thuja**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Oil Arnica Flowers.—True**

Essential oil fr. flr. of *A. montana*, L.—Yellowish-red liq.—*Sol.* A., E.—*Sp. Gr.* 0.905 at 15° C.—Solidif. in the cold.—Chief constit., laurinic & palmitic acids & paraffin.—*Diuret.*; *Diaph.*; *Emmen.*—*Uses: Extern.*, rheum., gout, burns, injuries, &c.—*Intern.*, in sequelæ of apoplexy.—*Dose* 1/2-2 drops, several t. p. d.—*Appl.*, w. lime-water & egg-yolk in burns.

**Oil Artemisia**

Fr. fl'g herb *A. maritima*, L. (Roman Wormwood).—*Antisep.*; *Astring.*—*Uses:* Skin dis. & inflamed surf.

**Oil Asarum**

(Oil Canada Snakeroot).—Essential oil fr. the rhizome *Asarum canadense*, L.—*Antisep.*; *Arom.*; *Stim.*—*Uses:* Flavor. for o. remed.—*Dose* 1-2 ℥ (0.06-0.12 Cc.).

**Oil Balm.—German, true**

(Oil of Melissa; Oil of Lemon Balm).—Essential oil fr. lvs. & tops *Melissa officinalis*, L.—Yellow liq.—*Sol.* A.—*Sp. Gr.* 0.89-0.925 at 15° C.—Chief constit. citral,  $C_{10}H_{16}O$ .—*Diaph.*; *Antispasmod.*—*Uses:* Agre. flavor. for antispasmod. & diaph. medic.—*Extern.*, as liniment.—*Dose* 1-3 ℥ (0.06-0.2 Cc.).

**Oil Barbadoes Nuts.—see Oil Jatropha Curcas****Oil Basil**

Essential oil fr. lvs. *Ocimum Basilicum*, L. (Sweet Basil).—Solidifies when long kept.—*Antisep.*; *Arom.*; *Stim.*—*Uses:* Flavoring other remedies & in perfumery.—*Dose* 1-2 ℥ (0.06-0.12 Cc.).

**Oil Bay.—see Oil Myrcia****Oil Bay, Sweet.—see Oil Laurel, Volatile****Oil Benne.—see Oil Sesame****Oil Bergamot**

Essential oil fr. rind fresh fruit *Citrus Bergamia* (var. *Vulg.*), *Risso & Poiteau*.—Yellowish-green liq.—*Sol.* A., E., C.—*Sp. Gr.* 0.883-0.886 at 15° C.—Known constit., limonene, dipentene, linalool, & linalyl acetate.—*Uses:* Perfumery, in hair oils & pomades, & for masking odors of ill-smelling substances (e.g., iodoform, naphthalene).—*Caut.* Keep well stoppered, cool, & dark.

do.—2½-fold, free fr. terpenes

**Oil Betula Merck**

(4)

(Oil Sweet Birch; commercially known as "Oil Wintergreen").—Volatile oil obt. by macerat. & distil. fr. bark *Betula lenta*, L. (Sweet Birch).—Nearly pure methyl salicylate,  $CH_3C_7H_7O_2$ , (abt. 99.8%); almost identical w. oil of wintergreen.—*Color.* liq.—*Sol.* A., E., C.,  $CS_2$ .—*Anti-rheum.*; *Antisep.*—*Uses: Intern.* & *Extern.*, in rheum., gout, & neural.—Also as perfume & for flavoring.—*Dose* 5-30 ℥ (0.3-2 Cc.).

**Oil Birch, Sweet.—see Oil Betula****Oil Birch Wood Merck.—Empyreumatic** (1)

(Empyreumatic Birch Oil; Oleum Rusci).—Fr. *Betula alba*, L. (White Birch), by destruct. distil.—Black, viscid liq.; odor of Russia leather.—Contains oil turpentine, other isomeric hydrocarbons, various empyreumatic resins, & betulin.—*Antiseptic.*—*Uses:* Inst. of tar, or oil of cade for skin dis.—*Techn.*, preserv. wood & leather.

**do. Merck.—Distilled** (3)

Fr. fractional distil. of the empyreumatic oil of *Betula alba*, L. (White Birch).—Brownish-black liq.—*Sol.* A.—*Antiseptic.*—*Uses:* Oint. 5% w. simple oint., or w. olive oil in parasitic skin dis.

**Oil Cade Merck**

(1)

(Empyreumatic Oil Juniper Tar).—Empyreumatic oil fr. destruct. distil. of wood of *Juniperus Oxycedrus*, L.—Dark, opaque, tarry liq.; smoky, acid, disagre. taste.—*Sp. Gr.* 0.990 at 15° C.—*Sol.* E., C., carbon disulphide.—*Antiseptic.*—*Uses: Extern.*, in psoriasis, gout, rheum., favus, &c.—*Intern.*, very rarely as anthelmintic & in chronic skin dis.—*Veter.*, oint. & in soap for parasitic skin dis. of sheep, horses, dogs, &c.—*Dose* 2-5 drops 3-4 t. p. d.

**Oil Cajuput**

Volatile oil fr. fresh lvs. & twigs of *Melaleuca Leucadendron*, L.—Thin, colorl., or greenish liq.—*Sp. Gr.* 0.92-0.93 at 15° C.; (0.915-0.925 at 25° C.—U. S. P.).—*Sol.* A., E., C., carbon disulphide.—Slightly levogyrate.—*Constit.*: Cineol, terpinol.—*Stim.*; *Diaph.*—*Uses: Intern.*, dyspep., cardialgia, colic, flatulence, asthma, tapeworm, low fevers, cholera, rheum., gout, bronch., catarrh., toothache, rheumat., earache, &c.—*Extern.*, in pityriasis, psoria., aene, chron. rheum. & neural., &c., in 1-5:10 oint. or linim.—*Dose* 1-3 drops several t. p. d.

**Oil Calamus**

(Oil Sweet Flag).—Essential oil fr. rhiz. of *Acorus Calamus*, L. (Sweet Flag).—Yellowish-brown liq.—*Sp. Gr.* 0.960-0.970 at 15° C.—*Sol.* A.—*Opt. Rot.* +15° to +21°—*Stoma.*; *Carmin.*—*Uses:* Dyspep.—*Dose* 1/2-2 ℥ (0.03-0.12 Cc.).

**Oil Camphor**

(Formosa, or Japanese Oil of Camphor).—Volatile oil fr. *Camphor officinarum*, *Nees*.—*Sol.*, oils, E., C.—*Stim.*; *Antisep.*; *Rubefacient.*—*Uses: Extern.*, spasmodic cholera, & w. olive oil as linim. in rheum., neural., bruises, & sprains.—*Dose* 2-3 ℥ (0.12-0.2 Cc.).

**Oil, Camphorated**

Solut. of camphor in cottonseed oil 1:5.—*Rubefacient.*; *Stim.*—*Uses: Intern.*, collapse.—*Extern.*, rheum., neural., &c.—*Dose* 5-10 ℥ (0.3-0.6 Cc.) hypoderm. in collapse.

**Oil Canada Snakeroot.—see Oil Asarum****Oil Cananga.—see Oil Ylang-Ylang**

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Cold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Oil Canella**

Fr. bark *C. alba*, Murray.—Arom.; Stim.—*Uses*: Flavor. o. remed.—*Dose* 1-2 ℥ (0.06-0.12 Cc.).

**Oil Caraway**

Essential oil fr. fruit *Carum Carvi*, L.—Colorl. or pale-yellow liq.; darkens & thickens w. age.—Chief constit., carvol,  $C_{10}H_{14}O$ ; limonene.—Sp. Gr. 0.900-0.910 at 25° C.—*Sol.* A., E., C.—Opt. Rot. +75° to +85° in a 100 Mm. tube.—Stim.; Carmin.—*Uses*: Colic, anorexia, digestive disturbances, to improve taste of bitter remed. & to correct griping cathartics; also in manuf. liqueurs.—*Dose* 1-10 ℥ (0.06-0.6 Cc.).

do.—Extra strong

(Carvol).—Pure carvol fr. oil of caraway.— $C_{10}H_{14}O$ .

do.—2½-fold, free fr. terpenes

**Oil Cardamom**

Volat. oil fr. fruit *Elettaria repens* (Sonnerat), Baillon.—Arom.; Carmin.; Stim.—*Uses*: Flavor.—*Dose* 1-2 ℥ (0.06-0.12 Cc.).

**Oil Cascarilla**

Volat. oil fr. bark *Croton Eluteria*, Bennet.—Stim.; Tonic; Arom.—*Uses*: Adjuvant in bitter tonics.—*Dose* 1-2 ℥ (0.06-0.12 Cc.).

**Oil Cassia**.—see **Oil Cinnamon, Chinese**

**Oil Castor**

Fixed oil expressed fr. seeds *Ricinus communis*, L.—Mainly ricinolein  $C_{18}H_{34}(C_{18}H_{33}O_2)_2$ , w. some palmitin, stearin, & myristin.—Yellow, oleaginous liq.—Sp. Gr. 0.950-0.970 at 15° C.; (0.945-0.965 at 25° C., U. S. P.).—*Sol.* A., E., glacial acetic acid.—Cathartic.—*Uses*: Intern., constip., colic, diar., & dysent.—*Extern.*, in hair restorers.—*Techn.*, in manuf. Turkey-red oil, soap, regenerating caoutchouc, as lubricant, &c.—*Dose* 4-8 dr. (15-30 Cc.) as mild laxat.; for children, 1-3 dr. (4-12 Cc.).

**Oil Cedar Leaves**

(Oil of Red Cedar Leaves).—Volat. oil fr. lvs. *Juniperus virginiana*, L.—Sp. Gr., abt. 0.885.—Antisept.; Emmen.—*Uses*: Perfume.

**Oil Cedar, White**.—see **Oil Thuja**

**Oil Cedar Wood**

(Oil of Red Cedar Wood).—Volat. oil fr. wood *Juniperus virginiana*, L., & other spec. of cedar.—Yellowish, viscid liq.—Sp. Gr. 0.906-0.985, varying according to source.—*Constit.*: Cadinene, cedar camphor.—*Uses*: Intern., rarely, in gonorr. like santalwood oil.—*Techn.*, perfumery; manuf. liqueurs; in microscopy as clearing agent & for use w. immersion lens.

**Oil Cedrat**

(Oil of Citron).—Volat. oil fr. rind of fruit *Citrus medica*, Risso.—Arom.; Stim.; Antisept.—*Uses*: Perfume & flavor.—*Dose* 1-2 ℥ (0.06-0.12 Cc.).

**Oil Celery**

Volat. oil fr. seed *Apium graveolens*, L.—Stim.; Arom.; Carmin.; Antispasmod.—*Uses*: Headache, hyst., nerv. affect., & as flavor for unpleas. remed.—*Dose* 1-2 ℥ (0.06-0.12 Cc.).

**Oil, Chabert's**

Distillate fr. fetid animal oil, & turpentine oil.—Brown liq.—*Temiafuge*.—*Dose*. 15-20 drops several t. p. d. in tapeworm.

**Oil Chamomile, German**.—see **Oil Matricaria**

**Oil Chamomile, Roman**.—see **Oil Anthemis**

**Oil Champaca**

Volat. oil fr. flr. *Michelia Champaca*, L.—*Uses*: Perfume.

**Oil Chaulmoogra Merck**

(4

(*Gynocardia* Oil).—From seeds of *Gynocardia odorata*, R. Br.—Yellowish-wh., fatty oil; gran. mass when cold.—Sp. Gr. 0.930 at 15° C.—*Sol.* E., C., B., carbon disulphide; partly in A.—*Melt.* 42° C.—*Uses*: Claimed specific in elephantiasis or Eastern leprosy.—*Extern.*, bruises, sores, & injuries.—*Dose* 4 grains (0.25 Gm.) w. gradual incr. to 20 grains (1.3 Gm.).—*Hypoderm.*, 75 ℥ (5 Cc.) of sterilized oil.

**Oil Chenopodium**

(Oil American Wormseed).—Volatile oil obtained from the fruit of *Chenopodium anthelminticum*.—Thin, colorl., or yellow liq.—Sp. Gr. 0.97 at 15° C.—*Sol.* A., E.—Anthelmintic.—*Dose* 4-8 ℥ (0.25-0.5 Cc.) for children, followed by a cathartic.

**Oil Cherry Laurel**

Volat. oil fr. lvs. *Prunus Laurocerasus*, L.—Pale-yellow oil; odor & physical properties of essential (bitter) oil almond.—*Sol.* A., E., C., B.—Sp. Gr. 1.055-1.065 at 15° C.—*Constit.*: Hydrocyanic acid, benzaldehyde, & benzyl alcohol.—Sedative.—*Uses*: Cough remed., pulmon. affect.—*Dose* ⅙-⅓ ℥ (0.01-0.03 Cc.).—*Antid.*, emetics, stomach siphon, ammonia, brandy, & iron persulphate.—*Caut.* Poison!

**Oil Cinnamon, Ceylon**.—True

Volat. oil fr. inner bark of shoots, *Cinnamomum zeylanicum*, Breyne.—*Constit.*: Chiefly cinnamic aldehyde; also, a little eugenol & phellandrene.—Sp. Gr. 1.025-1.035.—*Sol.* A., E., C.—Stim.; Arom.—*Uses*: Flavor is finer than that of oil of Chinese cinnamon.

**Oil Cinnamon, Chinese**

(Oil of Cassia).—Volat. oil fr. bark Chinese Cinnamon.—Yellow or brownish liq.—*Constit.*: Cinnamic aldehyde (70%); also cinnamyl acetate & eugenol.—Sp. Gr. 1.055-1.070; (1.045-1.055 at 25° C., U. S. P.).—*Sol.* A., E., C.—Stim.; Arom.—*Uses*: Flavor & perfume. Frequently employed inst. of oil of Ceylon cinnamon in colic, gastrodynia & gastric debil; also in chocolate manuf.—*Dose* 1-3 ℥ (0.06-0.2 Cc.).

do.—2-fold, free fr. terpenes

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Oil Citron.**—see **Oil Cedrat**

### Oil Citronella

Volat. oil fr. *Andropogon nardus*.—Yellow liq.—*Constit.*: Camphene, citronellal, borncol, geraniol, & dipentene.—*Uses*: Perfume; also in veter. medicine as liniment.

### Oil Cloves

(2)

Volat. oil fr. unexpanded flr. buds *Eugenia aromatica*, O. Kuntze.—Yellowish to brownish liq.—*Constit.*: Mainly eugenol,  $C_{10}H_{12}O_2$ , & caryophyllene.—Sl. levorot.—Sp. Gr. 1.060–1.067 at 15° C.; (1.040–1.060 at 25° C., U. S. P.).—*Sol.* A., E., C.—*Boil.* 247° C.—*Antisept.*; Anod.—*Uses*: *Extern.*, toothache; also flavor.—*Dose* 1–2 m (0.06–0.12 Cc.).

do.—2-fold, free fr. terpenes

### Oil Cochlearia

Volat. oil fr. *C. officinalis*, L. (*Scurvy-grass*).—*Constit.*: Chiefly secondary butyl thiocarbamide,  $C_4H_9CSN$ .—*Stim.*; *Aper.*; *Diur.*—*Uses*: *Scurvy*, rheum., & dyspep.—*Dose* 2–5 m (0.12–0.3 Cc.).

### Oil Cocoanut

Fr. nut *Cocos nucifera*, L.—Wh., semi-solid, lard-like fat.—*Sol.* A., E.—Liquid at abt. 20–25° C.—*Alter.*; *Nutrient.*—*Uses*: *Substit.* for cod-liver oil in phth. & as oint. base.—*Dose* 2–4 dr. (8–15 Cc.).

### Oil Cod-liver

Fr. livers of *Gadus Morrhua*, L. (*Cod*).—Pale-yellow liq.—Sp. Gr. 0.926–0.931 at 15° C.; (0.918–0.922 at 25° C., U. S. P.).—*Sol.* E., C.,  $CS_2$ , 2.5 acetic ether; sl. in A.—*Alter.*; *Tonic*; *Nutrient.*—*Action* believed to depend upon its iodine content, & also upon its easy digestibility, due to the biliary constituents & the free fatty acids present.—*Uses*: *Intern.*, tuberculosis, scrofula, rheum., carious ulc., cutan. erup., &c.—*Extern.*, in certain cutaneous eruptions, corneal opacities (1–2 drops), & in enema (1–2 tablespoonfuls).—*Dose* 4 fl. dr. (15 Cc.), in emulsion, in the froth of porter, &c.—A suitable corrigent is peppermint oil, added in the proportion of abt. 1 drop to the fl. oz. (30 Cc.).—*Caut.* Keep from air & light.

### Oil Cod-liver, Ferrated

Cont. 1% iron benzoate.—*Tonic*; *Alter.*; *Nutrient.*—*Uses*: *Scrof.* & anemia.—*Dose*: For children, 60–180 m (4–12 Cc.) per day.

**Oil Cognac.**—see **Ethyl Oenanthate**

### Oil Copaiba

Volat. oil fr. balsam of copaiba (us'ly *Marcobaiba*).—Colorl., or pale-yellow liq.—*Constit.*: Chiefly caryophyllene,  $C_{15}H_{24}$ .—Sp. Gr. 0.890–0.910 at 15° C.; (0.895–0.905 at 25° C., & increas. w. age, U. S. P.).—*Sol.* A., E., carbon disulphide.—*Antiseptic.*—*Uses*: *Gonor.*, gleet, & o. dis. of muc. membr.—*Dose* 5–20 m (0.3–1.3 Cc.).

### Oil Coriander.—Free fr. terpenes

Volat. oil fr. fruit *Coriandrum sativum*, L.—Colorl., or sl. yellow liq.—*Constit.*: Chiefly linolool,  $C_{10}H_{18}O$ , & pinene.—Sp. Gr. 0.870–0.855; (0.863–0.878 at 25° C., U. S. P.).—*Sol.* A., E., C., glacial acetic acid.—*Stomachic*; *Arom.*; *Tonic.*—*Uses*: *Correct* the nausea & griping of o. remed.; also in manuf. liqueurs, & in chocolate industry under the name “theobrominat” to improve taste of inferior grades of cacao; also in baking.—*Dose* 1–5 m (0.06–0.3 Cc.) with sugar or dissolved in A.

### Oil Cotton Seed

Fixed oil fr. seeds *Gossypium herbaceum*, L., & o. *spec.* G.—Pale-yellow, oily, odorl. liq.—Sp. Gr. 0.920–0.930 at 15° C.; (0.915–0.921 at 25° C.).—*Sol.* E., C., carbon disulphide; sl. in A.—*Uses*: Inst. of olive or almond oil.

**Oil Crispmint.**—see **Oil Mint, Curled-**

### Oil Croton Merck

(2)

Fixed oil obtained by expression fr. seeds *Croton Tiglium*, L.—Brownish-yellow liq.—Sp. Gr. 0.940–0.960 at 15° C.; (0.935–0.950 at 25° C., U. S. P.).—*Sol.*, absolute A., E., C., carbon disulphide, oils; 55–60 A., increas. w. age.—*Irrastic Purgative*; *Rubefacient.*—*Uses*: *Intern.*, obstinate constip., amenor., & dropsy.—*Extern.*, rheum., neural., & indol. swell.; hypoderm. to nevi.—*Dose*  $1\frac{1}{2}$ –2 m (0.03–0.12 Cc.) in pills.—*Max.* D. 2 m (0.12 Cc.), single;  $2\frac{1}{2}$  m (0.15 Cc.) p. day.—*Antid.*, stomach siphon, oils, muciilage, opium, morphine hypoderm., cocaine, &c.—Also used in veter. medicine with castor oil in following doses: Cattle, 15–30 drops; horses, 10–20 drops; sheep, 8–12 drops; pigs, 5–10 drops; dogs, 1–5 drops; cats & fowls,  $\frac{1}{4}$ –1 drop.—*Caut.* Poison!

### Oil Cubeb

Volat. oil fr. fruit *Piper Cubeba*, L. fil.—Colorl., pale-green, or yellow liq.—*Constit.*: Dipentene, cadinene, cubeb-camphor.—Sp. Gr. 0.910–0.930; (0.905–0.925 at 25° C., U. S. P.).—*Sol.* 30 A., E., C.—*Antiseptic.*—*Uses*: *Gonor.* & gleet.—*Dose* 5–15 m (0.3–1 Cc.).

### Oil Cumin

Volat. oil fr. fruit *Cuminum Cyminum*, L.—Yellow liq.—*Constit.*: Chiefly cymol,  $C_{10}H_{14}$ , & cummin aldehyde,  $C_{10}H_{12}O$ .—Sp. Gr. 0.890–0.930.—*Carminative.*—*Uses*: *Extern.*, with expressed oil nutmeg 1:10 in spasmodic pains, particularly in children.—*Dose* 1–3 m (0.06–0.2 Cc.).

### Oil Cypress

(14)

Fr. fresh lvs. & tender shoots of *Cupressus sempervirens*, L.—Volat., colorl., oily liq.—*Antisept.*; *Antispas.*—*Uses*: Whoop-cough; sprinkle around the patient's room.

### Oil Dill

Volat. oil fr. fruit *Peucedanum graveolens*, Benth. & Hook. fil.—*Constit.*: Chiefly carvol,

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



$C_{10}H_{16}O$ , & limonene,  $C_{15}H_{24}$ .—Sp. Gr. 0.905–0.915.—Carminative.—*Uses*: Flavor, o. remed., &c.—*Dose* 3–10 m (0.2–0.6 Ce.).

*Oil, Dippel's*.—see **Oil Animal**

### Oil Egg Yolk

Fatty oil obtained by expression fr. the yolks of fresh eggs.—*Uses*: In lotions, & as popular remedy abroad in corneal opacities.

### Oil Erechites

(Oil Fire weed).—Volat. oil fr. *Erechites hieracifolia*, Raf.—Arom.; Tonic; Stim.—*Uses*: As an appetizer, & to check colic.—*Dose* 2–6 m (0.12–0.36 Ce.).

### Oil Ergot Merck

(1)

Fixed oil fr. sclerotium of *Claviceps purpurea*, Tulasne.—Brown liq.—*Constit.*: Cholesterol, & olein- & palmitin-triglycerides with small quant. butyric & acetic acids.—Sp. Gr., abt. 0.924.—*Sol.* A., alkali solut.—Lax.; sl'y Emmen.

### Oil Erigeron

(Oil of Canada Fleabane).—Volat. oil fr. fresh, flowering herb *Erigeron canadensis*, L.—Sp. Gr. 0.850; (0.845–0.865 at 25° C., U. S. P.).—*Sol.* A., E., C.—Antisept.; Hemostatic.—*Uses*: Diarr., dysent., hemorrhages of intern. org., uræmic poison., cyst., Bright's dis., & epist.—*Dose* 10–30 m (0.6–2 Ce.).

### Oil Ethereal

Volat. liq.; equal vols. ether & heavy oil wine (U. S. P.).—Sp. Gr. 0.905 at 25° C., U. S. P.—*Sol.* A., E., C.—Calnative; Antispasm.

*Oil Ethyl Mustard*.—see **Ethyl Thiocarbimide**

### Oil Eucalyptus Merck

(2)

Volat. oil fr. var. spec. *Eucalyptus*.

### Oil Eucalyptus Globulus Merck

(2)

Volat. oil fr. lvs. *E. globulus*, Labill.—Colorl., or yellowish liq.—*Constit.*: Chiefly eucalyptol, or cineol,  $C_{10}H_{18}O$ , & valeraldehyde, butyraldehyde, capronaldehyde, & pinene.—Sp. Gr. 0.91–0.93 at 15° C.; (0.905–0.925 at 25° C., U. S. P.).—Opt. Rot. +1° to +10° in a 100 Mm. tube.—*Misc.* A., E., carbon disulphide.—*Boil.*, abt. 175° C.—Antisept.; Antipyr.; Disinf.—*Uses*: Intern., intermit. & remit. fever, bronch., cyst., & dysent., & by inhal. in asthma or catarrh.—*Extern.*, skin dis. (1:5 oil).—*Dose* 5–15 m (0.3–1 Ce.) in emulsion.

### Oil Fennel

Volat. oil fr. fruit *Foeniculum vulgare*, Mill.—Colorl., or pale-yellow liq.—*Constit.*: Pinene, phellandrene, limonene, dipentene, fenchone, anethol.—Sp. Gr. 0.965–0.975; (0.953–0.973 at 25° C., U. S. P.).—*Sol.* A., E., C.—Carmin.; Corrigent.—*Uses*: Cover taste of unpleas. remed., quiet babies, & relieve flatus.—*Dose* 1–5 m (0.06–0.3 Ce.).

do.—2-fold, free fr. terpenes

### Oil Fir Cones

Volatile oil fr. cones of *Picea excelsa*, Link (Pinus Abies, Duroi).—Colorl., limpid liq.; balsamic odor; terebinthinate taste.—*Sol.* A., E.—Antisept.; Alter.—*Uses*: *Extern.*, and by inhalation in various bronchial affections, rheumatism, &c.

*Oil Fir, European Silver*.—see **Oil Pinus Abies**

*Oil Fir, Scotch*.—see **Oil Pine-Needles**

*Oil Fir, Spruce*.—see **Oil Pinus Picea**

*Oil Fir-wood*.—see **Oil Pine-Needles**

*Oil Firweed*.—see **Oil Erechites**

*Oil Flaxseed*.—see **Oil Linseed**

*Oil Fleabane, Canada*.—see **Oil Erigeron**

### Oil Garlic

Volat. oil fr. bulb *Allium sativum*, L.—*Constit.*: Chiefly  $C_6H_{10}S_2$ ,  $C_6H_{12}S_2$ ,  $C_6H_{10}S_3$ , & allied bodies, but no allyl sulphide.—Stim.; Expector.; Diur.; Diaph.—*Uses*: Hyst., nerv. affect., delir. trem., &c.—*Dose* 2–6 m (0.12–0.36 Ce.).—See also Allyl Sulphide.

### Oil Gaultheria

(Oil of Wintergreen).—Volat. oil fr. lvs. *Gaultheria procumbens*, L.—Colorl., or alm. colorl. liq.—Abt. 99% methyl salicylate,  $CH_3C_7H_7O_3$ .—Sp. Gr. 1.177 at 15° C.; (1.172–1.180 at 25° C., U. S. P.).—*Sol.* A., E., C., carbon disulphide.—*Boil.* 218–221° C.—Analg.; Antirheum.; Antisept.—*Uses*: Intern., Rheumatic affect., pleurisy, pericard. & scarlat.—*Extern.*, orchitis, epididymitis, articular rheum., &c.—*Techn.*, perfumes & flavor.—*Dose* 5–20 m (0.3–1.3 Ce.).—*Appl.*, in orchitis & epididym., 20 drops rubbed in 2–3 t. p. d.; in chorea, 6–10 drops rubbed in on the thigh & leg.

*Oil Gaultheria, Synthetic or Artificial*.—see **Methyl Salicylate**

### Oil Geranium

(Oil of Rose Geranium).—Volat. oil fr. lvs. *Pelargonium odoratissimum*, L., & allied species.—*Constit.*: Chiefly geraniol,  $C_{10}H_{18}O$ .—*Sol.* A., E.—*Uses*: Perfume.

### Oil Geranium, Turkish.—Rectified

(Palmarosa Oil).—Fr. *Andropogon Schœnanthus*, L., & allied sp., grown in India (not Turkey).

### Oil Ginger

Volat. oil fr. rhizome *Zingiber officinale*, Roscoe.—Yellowish liq.—Sp. Gr. 0.875–0.885.—*Constit.*: Camphene & phellandrene.—Opt. Rot., –20° to –40°.—*Sol.* A., E., C.—Stomachic; Carmin.; Digestive.—*Uses*: Dysent., flatulent colic, dyspep.; & in tooth washes, ginger essence, &c.—*Dose* 1–3 m (0.06–0.2 Ce.) on sugar or in alcohol. solut.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Oil Goldenrod**

Volat. oil fr. fresh fl. herb *Solidago odora*, Aiton.  
—Sp. Gr., abt. 0.960.—*Uses*: Perfume.

**Oil Guaiac-wood**

Essential oil fr. wood, *Guaiacum officinale*, L.—  
Semi-solid or crystalline at ord. temp., intense  
tea-like odor.—*Uses*: Perfume.

*Oil Gynocardia*.—see **Oil Chaulmoogra**

*Oil, Haarlem*.—see **Oil Linseed Sulphurated,  
Terebinthinated**

**Oil Hedeoma**

(Oil of American Pennyroyal).—Volat. oil fr.  
lvs. & flowering tops of *Hedeoma pulegioides*,  
L., Persoon.—Pale-yellow liq.—Sp. Gr. 0.930–  
0.940 at 15° C.; (0.920–0.935 at 25° C., U. S. P.).  
—*Sol.* E., C., carbon disulphide, A., glacial  
acetic acid.—*Tonic*; *Carmin.*; *Emmen.*—*Uses*:  
Amenor., flatulent colic, nausea, &c.—*Dose* 2–10  
m (0.12–0.6 Cc.).

**Oil Hops**

Volat. oil fr. strobiles of *Humulus Lupulus*, L.  
—Brownish liq.—Sp. Gr. 0.855–0.880 at 15° C.  
—*Constit.*: Terpene & humulene.—*Sol.* A., E.,  
C.—*Sed.*; *Tonic*; *Nar.*—*Uses*: *Nerv. debil.*,  
*insom.*, & *delirium*.—*Dose* 1–5 m (0.06–0.3 Cc.).

**Oil Horsemint**

Volat. oil fr. *Monarda punctata*, Willd.—*Arom.*;  
*Stim.*; *Carmin.*—*Uses*: Flatulent colic, dyspep.,  
& diar. affect.—*Dose* 1–10 m (0.06–0.6 Cc.).

**Oil Hyoscyamus Merck.—Boiled**

(1  
Olive or o. fixed oil heated w. fresh hyoscyamus  
leaves.—Brownish-green, oily liq.; odor & taste  
of hyoscyamus.—*Sedative*.—*Uses*: Relieve the  
cough of phth. patients.—Chiefly extern., for  
inunctions with mercurial oint., camphor liniment,  
chloroform, & the like, in rheumatic  
affect.; also as instillation in the external ear,  
& in enemas.—*Dose* 1–5 m (0.06–0.3 Cc.).

**do. Merck.—Expressed**

(1  
Fixed oil obtained by expression fr. seeds *Hyos-*  
*cyamus niger*, L.—Not narcotic; possesses only  
the properties of a fatty oil.

**Oil Hyssop**

Volat. oil fr. *Hyssopus officinalis*, L.—Sp. Gr.,  
abt. 0.930.—*Carmin.*; *Stim.*; *Sud.*—*Uses*: *Diar.*,  
flatulent colic, dyspep., &c.—*Dose* 1–5 (0.06–  
0.3 Cc.).

*Oil Indian Melissa*.—see **Oil Lemon Grass**

**Oil Jatropa Curcas**

(Oil of Barbadoes Nuts).—Fr. nuts *Jatropa*  
*Curcas*, L.—*Purg.*, similar to croton oil.—*Uses*:  
*Antid.* to alcohol & in obstinate constip.—*Dose*  
2–8 m (0.12–0.5 Cc.).

**Oil Juniper Berries Merck**

(2  
Volat. oil fr. fruit *Juniperus communis*, L.—  
Colorl. to pale-yellow liq.—*Constit.*: Chiefly pi-

nene,  $C_{10}H_{16}$ , & cadinene.—Sp. Gr. 0.860–0.880  
at 25° C., U. S. P.—*Sol.*, carbon disulphide,  
E., A.—*Diur.*; *Carmin.*; *Stim.*—*Uses*: *Intern.*,  
dropsy & suppression of urine.—*Techn.*, in  
manuf. liquors (gin, &c.).—*Surg.*, preserving  
surg. ligatures.—*Dose* 5–15 m (0.3–1 Cc.).

**Oil Juniper Berries.—20-fold, free fr. terpenes**

Preceding, deprived of less odorous consti.

*Oil Juniper Tar, Empyreumatic*.—see **Oil Cade**

**Oil Juniper Wood**

Volat. oil fr. leafy branches of *Juniperus com-*  
*munis*, L., distil. w. water.—Colorl. to yellow-  
ish, turpentine-like liq.; weak odor of juniper.  
—*Sol.* A.—*Uses*: Popularly as liniment in  
rheum. & paralysis, & in veterinary medicine.  
—*Caut.* Not to be used for preserv. catgut or  
silk.—*N. B.*: Not "Oil of Cade" (which see).

**Oil Lard**

Fixed oil expressed fr. lard at a low temperat.—  
Sp. Gr. 0.910–0.925 at 15° C.; (0.905–0.915 at  
25° C., U. S. P.).—*Sol.* A., E., C.—*Uses*: *Pharin.*

**Oil Laurel.—Expressed**

Fixed oil obtained by expression fr. the fresh,  
crushed fruit of *Laurus nobilis*, L.—Greenish,  
fatty substance consisting of a mixt. of lauro-  
stearin with a volat. oil, & the so-called laurel  
camphor; green color due to presence of chloro-  
phyll.—*Sol.* E.—*Melt.* 40° C.—*Uses*: In resol-  
vent embrocations; also in veter. medicine as  
appl. to swellings.

**do.—Volatile**

(Oil of Sweet Bay).—Volat. oil fr. fruit *Laurus*  
*nobilis*, L.—Greenish liq.—*Constit.*: Pinene,  
cineol.—Sp. Gr. 0.924–0.925 at 15° C.—*Sol.* A.,  
E., C.—*Excitant*; *Nar.*—*Uses*: Perfume for ex-  
ternal remedies. Rarely used intern.—*Dose*  
 $\frac{1}{3}$ –3 m (0.02–0.2 Cc.).

**Oil Lavender Flowers**

Volat. oil fr. fresh flowering tops of *Lavandula*  
*officinalis*, Chaix.—Colorl. to slightly yellowish  
liq.—*Constit.*: Chiefly linalyl acetate,  $C_{10}H_{17}C_2-$   
 $H_3O_2$ ; also pinene, cineol, & geraniol.—Sp. Gr.  
0.885–0.895 at 15° C.; (0.875–0.910 at 25° C.,  
U. S. P.).—*Sol.*, all prop. A.; glacial acetic acid,  
carbon disulphide, &c.—*Stim.*; *Tonic*.—*Uses*:  
Perfume & flavor.—*Dose* 1–5 m (0.06–0.3 Cc.).

**do.—2½-fold, free fr. terpenes**

Preceding, deprived of less odorous portions.  
—*Constit.*: Cineol, linalool, linalyl acetate, &  
geraniol.—*Uses*: Almost exclusively in cosmetics  
& as addition to liqueurs.

**Oil Lemon.—Fr. fresh peel**

Volat. oil expressed fr. fresh rind of *Citrus*  
*limonum*, Risso (*Lemon*).—Pale-yellow liq.—  
*Constit.*: Pinene, citral, & limonene.—*Opt. Rot.*  
+60° to +64° in a 100 Mm. tube.—Sp. Gr.  
0.858–0.861; (0.851–0.855 at 25° C., U. S. P.).  
—*Sol.* A., E.—*Stim.*; *Carmin.*—*Uses*: Perfume  
& flavor.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potas-  
sium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sul-  
phate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine;  
2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Oil Lemon.**—30-fold, free fr. terpenes

Colorl., transp., fragrant oil; pung., arom., pleas. taste.—*Uses:* Perfume.

**Oil Lemon Balm.**—see **Oil Balm**

**Oil Lemon Grass**

(Oil Verbena, Indian Melissa Oil).—Volat. oil fr. one or more sp. of *Andropogon*, particularly *A. citratus*.—Yellowish-brown liq.—*Constit.*: Citral,  $C_{10}H_{16}O$ , methyl-heptenone, & geraniol,  $C_{15}H_{24}O$ .—Sp. Gr. 0.905–0.920.—Stim.; Carmin.—*Uses:* Perfume, & for veter. liniments.

**Oil Limes**

(Oil of Limetta).—Volat. oil fr. rind of fruit, *Citrus Limetta*, Risso.—Carmin.; Stim.; Tonic.—*Uses:* Flavor. unpalatable remed. & perfume.

**Oil Linaloe**

Volatile oil distil. fr. a Mexican wood of uncertain origin, supposed species of *Amyris*.—Sp. Gr. 0.875–0.890.—*Sol.* A.—*Uses:* Perfume.

**Oil Linseed**

(Flaxseed Oil).—Fixed oil obtained by expression fr. the seed *Linum usitatissimum*, L.—Yellowish or yellow, oily liq.—*Constit.*: Stearin, palmitin, myristin, isolinolenin, linolein, & olein.—Sp. Gr. 0.930–0.940 at 15° C.; (0.925–0.935 at 25° C., U. S. P.).—*Sol.* 10 absol. A., E., C., B., carbon disulphide, oil turpentine.—Laxative.—*Uses:* Intern., mild cathartic & for piles; enemas for constip.—Extern., w. lime-water (Carron Oil) for burns.—Techn., in varnishes, paints, &c.

do.—Boiled

*Uses:* Techn.

**Oil Linseed Sulphurated**

(Sulphurated Linseed Oil; "Haarlem Oil"; Thioline Acid; Balsam Sulphur).—Solut. sulphur in linseed oil, prepared by aid of heat.—Brownish-red, thick oil.—*Sol.*, oil turpentine.—Antisept.—*Uses:* Scabies, pruritus, torpid ulcers, & parasitic skin dis.

**Oil Linseed Sulphurated, Terebinthinated**

(Haarlem Oil; Dutch Oil; Dutch Drops).—Oily preparation fr. mixing sulphurated linseed oil w. oil of turpentine (1:3).—Antiseptic.—*Uses:* Intern., lithiasis, cyst., &c.—Extern., skin dis., atonic & indol. ulc.—*Dose* 5–15  $\text{m}$  (0.3–1 Cc.) in milk.—*Caut.* Do not confound w. "Dutch Liquid," which is Ethylene Chloride.

**Oil Mace**

Volat. oil fr. mace, arillode of *Myristica fragrans*, Houttuyn.—*Constit.*: Pinene, dipentene, & myristicin,  $C_{15}H_{24}O_2$ .—Sp. Gr. 0.910–0.930.—Closely resembles oil of nutmeg.—*Uses:* Flavor.

**Oil Male Fern Merck**

(1100)

Volat. oil fr. rhizome *Dryopteris Filix-mas*, Schott, & *D. marginalis*, A. Gray.—Yellow liq.—Sp. Gr. 0.85–0.86 at 15° C.—Believed to be the

active constituent of the male-fern rhizoma.—*Sol.* A., E.—Anticholeric.—*Uses:* Recom. for tape-worms.—*Dose* 12–25  $\text{m}$  (0.75–1.5 Cc.)—*Caut.* Not the oleoresin of male fern, in common use for tape-worm.

**Oil Marjoram**

Volat. oil fr. *Origanum Majorana*, L.—Yellow liq.—Sp. Gr. 0.890–0.910.—*Sol.* A.—Tonic; Carmin.; Arom.—*Uses:* Hasten eruption in measles, scarlat., &c. Also perfume.—*Dose* 1–2 drops.—*Caut.* The oil commonly called "Oil of Origanum" is oil of thyme.

**Oil Marjoram, Wild.**—see **Oil Origanum**

**Oil Matico**

Volat. oil fr. lvs. *Piper angustifolium*, R. & P.—Yellow liq.—*Sol.* A.—Sp. Gr. 0.93–1.13.—*Constit.*: Matico camphor.—Antisept.; Stim.; Tonic.—*Uses:* Dis. of urin. passages, dysent., & bronch. affect.—*Dose*  $\frac{1}{2}$ –1  $\text{m}$  (0.03–0.06 Cc.).

**Oil Matricaria**

(Oil German Chamomile).—Volat. oil from flr. *Matricaria Chamomilla*, L.—Bluish, thick oil; butter-like on expos. to cold; agre. odor of chamomile.—Sp. Gr. 0.930–0.945 at 15° C.—*Sol.* 10 A.—Tonic; Arom.; Carmin.; Stim.—*Uses:* Cramps, colic, dyspep., &c.—*Dose* 1–2  $\text{m}$  (0.06–0.12 Cc.).

**Oil Melaleuca.**—see **Oil Niaouli**

**Oil Melissa.**—see **Oil Balm**

**Oil, Methyl Mustard.**—see **Methyl Thiocarbimide**

**Oil Milfoil.**—see **Oil Yarrow**

**Oil, Mineral, Crude.**—see **Petroleum**

**Oil Mint, Curled.**—2-fold, free from terpenes

(Oil Crispmint).—Volat. oil fr. lvs. *Mentha crispata*, L.—Alm. colorl. liq.—*Sol.* A.—*Constit.*: Chiefly carvone.—*Uses:* As of oil peppermint.—*Dose* 1–3 drops.

**Oil Mirbane.**—see **Nitrobenzene**

**"Oil Mullein" Merck**

(9)

Practically a tincture prep. fr. Mullein flowers (*Verbascum thapsus*).

**Oil Murure**

Dark-brown, fatty oil fr. *Urostigma cystopodium*, a Brazilian *Moraceæ*.—*Uses:* Intern., syphilis.—Extern., rheum. & syph.—*Dose:* Teaspoonful.

**Oil Muscatel Sage**

Volat. oil fr. *Salvia Sclarea*, L.—Sp. Gr. abt. 0.928.—*Uses:* Perfume.

**Oil Mustard Merck.**—Artificial

(4)

(Allyl Isothiocyanide; Allyl Sulphocyanide).—Fr. allyl iodide by potass. thiocyanide.— $C_4H_9SN$ , or,  $C_4H_9SCN$ .—Sp. Gr. 1.020 at 15° C.

do. Merck.—True, distilled

(8)

Volat. oil fr. seeds *Brassica nigra*, Koch.—Colorl.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



or pale-yellow liq.; v. pung. odor; acrid, burning taste.—Sp. Gr. 1.018–1.025 at 15° C.; (1.013–1.020 at 25° C., U. S. P.).—*Constit.*: Chiefly allyl-mustard oil,  $C_3H_5SCN$  (allylisothiocyanate), w. traces of carbon disulphide & allyl cyanide,  $C_3H_5.CN$ .—*Sol.* A., E., carbon disulphide.—*Boil.* 148–152° C.—*Rubefacient*; *Stim.*—*Uses*: Substit. for mustard poultices & leaves in pleuritic neural. or rheumat. pains. Best vehicle for administration is W.—*Dose*  $\frac{1}{8}$ – $\frac{1}{4}$  ℥ (0.008–0.015 G.).—*Appl.*, as rubefac., in 1:50 alcohol. solut.

### Oil Mustard.—Expressed

Expressed from mustard seed.—Straw-color., v. limpid oil. — Sp. Gr. 0.921–0.923 at 15° C.—*Uses*: Malnutrition.—*Techn.*, in manuf. oleo-margarine, soap, &c.; also as table oil.—*Dose* 1–2½ fl. oz. (30–75 Cc.) daily.

### Oil Myrcia

(Oil of Bay).—Volat. oil fr. lvs. *Myrcia acris*, De C.—*Constit.*: Chiefly eugenol,  $C_{10}H_{12}O_2$ ; also myrcene,  $C_{10}H_{16}$ , chavicol,  $C_9H_{10}O$ , methyl-eugenol, methylchavicol, citral, & *l*-phellandrene.—Sp. Gr. 0.975–0.990 at 15° C.—*Sol.* A., E., C.—*Uses*: Bay rum.

### Oil Myrtle

Volat. oil fr. lvs. *Myrtus communis*, L.—Brownish-yellow, fragr. liq.—*Sol.* A., E., C.—Sp. Gr., abt. 0.91 at 15° C.—*Constit.*: Pinene, cineol, & dipentene.—*Antisept.*; *Arom.*; *Astring.*—*Uses*: Chronic bronch., cyst., pyelitis, & stim. to muc. membr. of lungs & gen.-urin. org.—*Dose*  $\frac{1}{2}$ –4 ℥ (0.03–0.25 Cc.).

### Oil Neatsfoot

Fixed oil fr. feet of neat cattle.—Sp. Gr. 0.915 at 15° C.—*Alter.*; *Lax.*; *Nutrient.*—*Uses*: Substit. for cod-liver oil; also techn.—*Dose* 4–8 dr. (15–30 Cc.).

### Oil Neroli.—see Oil Orange Flowers

### Oil Niaouli

Volat. oil fr. lvs. *Melaleuca viridiflora*, Soland. (Niaouli).—*M.* *Leucadendron*, L.—Cont. 66% eucalyptol.—Sl'y yellow oil; arom. odor; pung., thin, refreshing taste, like peppermint; dextrogyre.—Sp. Gr. 0.922.—*Sol.* A., E., benzine; insol. W., G.—*Uses*: Bronch., tuberculosis.—*Dose* 4 ℥ (0.25 Cc.), 6 t. p. d., in capsules.—*Inj.* 15 ℥ (1 Cc.), in sterilized olive oil.—See also Gomenol.

### Oil Nutmeg.—Expressed

(Nutmeg Butter).—Fixed oil fr. nutmegs, & obtained by expression.—Mixt. of palmitin, olein, & myristin with ethereal oil & a little coloring matter.—Yellowish to orange-yellow, soft, solid; odor & taste of nutmeg.—Sp. Gr. 0.99–0.995 at 15° C.—*Melt.* 45–51° C.—*Sol.*, hot A., E.—*Nar.*; *Carmin.*—*Uses*: Weak appetite, flatulent colic; & flavor. for o. remed.—*Extern.*, as liniment & oint. in intestinal colic.—*Dose* 2–5 grains (0.12–0.3 Cc.).

### Oil Nutmeg.—Volatile

Volat. oil dist. fr. nutmegs.—Thin, colorl., or pale-yellowish liq.—Sp. Gr. 0.870–0.900 at 15° C.; (0.862–0.910 at 25° C., U. S. P.).—*Sol.* A., glac. acetic acid, & carbon disulphide.—*Opt.* Rot. +14° to +28°.—*Constit.*: Pinene, dipentene, myristic acid,  $C_{10}H_{14}O$ , myristicin,  $C_{12}H_{14}O_3$ , myristic acid,  $C_{13}H_{26}O_2$ .—*Carminative.*—*Uses*: Flavor.—*Dose* 2–3 drops.

### Oil Olive

(Sweet Oil).—Fixed oil expressed fr. ripe fruit *Olea europaea*, L.—Pale-yellow, or greenish-yellow, oily liq.—Sp. Gr. 0.915–0.918 at 15° C.; (0.910–0.915 at 25° C., U. S. P.).—*Constit.*: Chiefly olein & palmitin, with arachin, stearin, linolein, & cholesterolin,  $C_{29}H_{48}OH$ .—*Sol.* E., C., carbon disulphide; spar. in A.—*Lax.*; *Nutrient.*—*Uses*: *Intern.*, constip., worms, poisons, gallstones, &c.—*Extern.*, blistered or injured surf. *Constit.* of ointments, liniments, &c., & food; also as enema in chronic constip. in women (8–16 fl. oz. [abt. 250–500 Cc.] at a time, before retiring; the enema to be retained as long as possible, & repeated every 2–5 days). Also largely used in cooking, & on salads, &c.—*Dose* 1–2 oz. (30–60 Cc.) as laxat.; in gallstones, 1½–6 fl. oz. (abt. 50–200 Cc.).—*Caut.* Rancid on expos.

### Oil Orange Flowers

(Oil of Neroli).—Volat. oil fr. fls. *Citrus vulgaris*, Risso.—Reddish-yellow liq.—Sp. Gr. 0.880–0.890 at 15° C.—*Sol.* A., E., C.—*Uses*: Perfume & flavor.—*Caut.* Keep cool & fr. air.

#### do.—Bigarade

(Oil of Neroli, Bigarade).—Volat. oil fr. fls. & lvs. *Citrus Bigaradia*, Duham., & prob., also *C. vulgaris*, Risso.

#### do.—Petals

(Oil of Neroli, Pétale).—Volat. oil fr. petals *Citrus vulgaris*, Risso, & prob., also *C. Aurantium*, Risso.

#### do.—Petit Grain

(Oil of Neroli, Petit Grain).—Fr. lvs. & unripe fruit *Citrus Bigaradia*, Duham., & o. sp. of *Citrus*.

### Oil Orange Peel

Volat. oil expressed fr. fresh rind of *Citrus vulgaris*, Risso, *C. Aurantium*, L., or *C. Bigaradia*, Duham.—Light-yellow liq.—*Constit.*: Chiefly limonene,  $C_{10}H_{16}$ .—Sp. Gr. 0.850 to 0.860 at 15° C.; (0.842–0.846 at 25° C., U. S. P.).—*Sol.*, carbon disulphide, A., glacial acetic acid; v. sl. W.—*Carminative.*—*Uses*: Perfume, flavor, &c.—*Caut.* Keep cool & well stoppered.

#### do.—30-fold, free fr. terpenes

### Oil Origanum

(Oil Wild Marjoram).—Volat. oil fr. fl. tops of *Origanum vulgare*, L.—Yellowish or reddish-yellow liq.—*Constit.*: Carvacrol, & terpenes.—Sp. Gr. 0.87–0.91.—*Antisept.*; *Toic.*; *Excitant.*

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



Emmen. *Intern.*, angor, dysenter., flatulent colic. *Extern.*, skin dis., toothache. — *Dose* 2-10 ℥ (0.12-0.6 Cc.). — *Const.* The oil commonly called "Oil of Origanum" is oil of thyme.

### Oil Origanum. Cretan

Volat. oil fr. Origanum creticum. — Yellowish-red liq. — *Sol.* A. — *Sp. Gr.* 0.95 at 15° C. — *Boil.* 161° C. — *Uses:* Clearing specimens in microsc.

### Oil Orris

Volat. oil fr. rhizome of Iris florentina, L., & of o. sp. of I. — Yellowish, semi-solid fatty subst. — *Uses:* Perfume.

### Oil Palm.—From Fruit

(Palm Butter).—Fixed, butter-like oil obtained fr. fruit *Elaeis guineensis*, Jacq. (E. Melanococca), by boiling & expressing. — Reddish-yellow, fatty mass; faint odor of violet. — *Sp. Gr.* 0.920-0.927 at 15° C. — *Melt.* 27-42.5° C. — *Saponification No.* 202. — *Reichert No.* 0.5. — *Iodine No.* 51.5. — Emollient. — *Uses:* Pharm., & techn. in manuf. of soap & candles.

#### do.—From Seed

Fatty oil obtained fr. seed of *Elaeis guineensis*, Jacq., by expression. — Yellowish oil. — *Sp. Gr.* 0.952. — *Melt.* 26-30° C. — *Saponification No.* 247.6. — *Iodine No.* 13.4-13.6. — *Uses:* As appl. in liniments & oint. — *Techn.*, in manuf. soap.

### Oil Palmarosa.—see Oil Geranium, Turkish

### Oil Paraffin

(Liquid Paraffin).—Principally high-boil. hydrocarbons of the  $C_nH_{2n+2}$  series dist. fr. petroleum & obtained fr. the fraction boiling above 300° C., the product being decolorized & treated w. sulphuric acid. — Colorl. to yellowish, limpid oil; thickens with cold. — *Sp. Gr.*, abt. 0.880. — *Boil.*, not below 360° C. — *Sol.* E., amyl alcohol, benzin, B., C., oils, &c.; insol. W., A. — *Uses:* Pharm. in oints. & making Unguentum Paraffini; also as vehicle for various dermies insol. in W., e.g., thymol, iodoform, mercurials, &c.

### Oil Patchouli

Volat. oil fr. lvs. Pogostemon Patchouly, Pellet (P. Heyneanus, Benth.). — Brownish-yellow, thick, oily liquid; fragr. odor. — *Sp. Gr.* 0.970-0.990. — *Uses:* Perfume.

### Oil Peach.—Expressed

Fixed oil expressed fr. seed Amygdalus persica, Willd., & allied spec. — *Sp. Gr.* 0.915 at 15° C. — *Sol.* E., C.,  $CS_2$ ; partly in A. — *Cath.*; Nutrient. — *Uses:* As of almond or olive oil.

#### do.—Volatile

Mixt. of ethereal oils used in the manuf. of peach liqueur.

### Oil Peanut.—see Oil Arachis

### Oil Pennyroyal.—see Oil Hedeoma

### Oil Pepperack

(1

(Oil of Black Pepper). — Volat. oil fr. unripe fruit Piper nigrum, L. — Yellowish liq. — *Constit.*:

Phellandrene, caduene. — *Sp. Gr.* 0.870-0.905. — *Sol.* A, E., C. — *Carmin.*; *Stim.*; *Antipyr.* — *Uses:* Flatulent colic, intermit. fever, & as condiment. — *Dose* 1-3 ℥ (0.06-0.2 Cc.).

### Oil Peppermint

Volat. oil fr. fresh or partly dried lvs. & flowering tops of Mentha piperita, Smith. — Colorl. to pale-yellow liq. — *Constit.*: Chiefly menthol,  $C_{10}H_{20}O$ , w. menthene, limonene, & menthone. — *Sp. Gr.* 0.900-0.910 at 15° C.; (0.894-0.911 at 25° C., U. S. P.). — *Sol.* A, E., C. — *Opt. Rot.* -20° to -32° (-20° to -33° in a 100 Mm. tube at 25° C., U. S. P.). — *Carmin.*; *Stim.*; *Antisep.*; *Anod.* — *Uses:* *Intern.*, flatulence, colic, dysent., nausea, & nerv. affect. — *Extern.*, headache, toothache, rheum., neural., catarrh, hay fever, asthma, &c. Also flavor. for ill-tasting medicines, & tooth-powders, -pastes, & -washes, &c.; also in manuf. liqueurs. — *Dose* 1-5 ℥ (0.06-0.3 Cc.).

#### do.—2-fold, free fr. terpenes

Colorl. liq. — *Constit.*: Chiefly menthol & menthone. — *Uses:* Chiefly in cordials.

#### do.—Hotchkiss

Volat. oil fr. plants cultivated in Wayne Co., New York. — *Uses:* As of oil peppermint, preced.

#### do.—Japanese

(Oil of Poho). — The liquid portion remaining after the separation of the menthol fr. Japanese & Chinese peppermint oils fr. Mentha arvensis, L. — Yellow liq. — *Sol.* A, E., oils. — *Uses:* *Extern.*, in liniments in neuralgia, & in toothache.

#### do.—Mitcham

Volat. oil fr. peppermint cultivated at Mitcham, Surrey, England.

### Oil Phenylmustard

(Thiocarbamil). —  $C_6H_5.NCS$ . — Yellowish liq. — *Sol.* A, E. — *Sp. Gr.* 1.135 at 15° C. — *Boil.* 222° C.

### Oil Phosphorated

1% solut. phosphorus in almond oil & ether. — *Sol.* E., C., & oils. — *Nerve Stim.*; *Tonic.* — *Uses:* Sexual exhaust., mental failure, melancholia, cerebral softening, chronic skin affect., neural., &c. — *Dose* 3-5 ℥ (0.2-0.3 Cc.). — *Antid.*, old oxidized oil of turpentine, copper sulphate, stomach siphon, mucilaginous drinks, brandy.

### Oil Pimenta

(Oil of Allspice, or of Pimento). — Volat. oil fr. ripe fruit Pimenta officinalis, Lindley. — Colorl. to pale-yellow or reddish liq.; arom. odor; pung., spicy taste. — *Constit.*: Chiefly eugenol,  $C_{10}H_{12}O_2$ . — *Sp. Gr.* 1.045-1.055 at 15° C.; (1.033-1.048 at 25° C., U. S. P.). — *Sol.* A, E., C., glac. acetic acid, carbon disulphide. — *Carmin.*; *Stim.*; *Tonic.* — *Uses:* Flatulent colic, & as flavor. — *Dose* 1-5 ℥ (0.06-0.3 Cc.).

### Oil Pine, Mountain.—see Oil Pinus Pumilio

### Oil Pine Needles Merck

(2

(Oil Scotch Fir; Fir-wood Oil; Oil Pinus Sylvestris). — Volat. oil fr. lvs. Pinus sylvestris, L.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



—Yellowish liq.—Sp. Gr. 0.884–0.886 at 15° C.  
—*Constit.*: Dipentene, pinene, sylvestrene, & occasionally also bornyl acetate & cadinene.—*Op. Rot.* +10°.—*Antisep.*: Antirheum.—*Uses*: *Extern.*, chron. rheum.—*Intern.*, stim. expector.; by inhal. w. steam in pulmonary dis.

*Oil Pine, Silver.*—see **Oil Pinus Abies**

### Oil Pinus Abies

(Oil Silver Pine; Oil European Silver Fir).—*Volat.* oil fr. the needles of *Abies pectinata*, De C.—*Yellowish liq.*—Sp. Gr. 0.865–0.875 at 15° C.—*Constit.*: Pinene, limonene, bornyl acetate, & cadinene.—*Opt. Rot.* -20° to -50°.

### Oil Pinus Picea

(Oil Spruce Fir; Oil Norway Spruce).—*Volat.* oil fr. needles of *Picea vulgaris*, Lam.—*Yellowish liq.*—Sp. Gr. 0.808 at 15° C.—*Constit.*: Pinene, dipentene, phellandrene, bornyl acetate, & cadinene.—*Opt. Rot.* -21°.

### Oil Pinus Pumilio Merck (10

(Oil of Mountain Pine).—*Volat.* oil fr. lvs. *Pinus Pumilio*, Haenke.—*V. fragr.*, yellowish oil; terebinthinate taste.—*Constit.*: Pinene, phellandrene, sylvestrene, bornyl acetate, & cadinene.—*Opt. Rot.* -5° to -10°.—Sp. Gr. 0.865–0.870.—*Sol.* A., E., C.—*Antisep.*: Expector.—*Uses*: Inhalation in bronch. & pectoral affect., or in capsules as stim. expectorant; lately employed in glandular enlargements, boils, & skin dis.—*Dose* 5–10 m (0.3–0.6 Cc.).

*Oil Pinus Sylvestris.*—see **Oil Pine Needles**

*Oil Pogostemon.*—see **Oil Patchouli**

*Oil Poho.*—see **Oil Peppermint, Japanese**

### Oil Poppy

Expressed fr. seeds of *Papaver somniferum*, L.—*Pale-yellow liq.*—*Uses*: Linim. & as substit. for olive, or almond, oil; also techn. (paints, &c.).

### Oil Pumpkin Seed

Expressed fr. seeds *Cucurbita Pepo*, L.—*Thick, reddish, oily liq.*; rank taste.—Sp. Gr. 0.928.—*Anthelmintic*(?).

### Oil Rhodium

(Oil of Rosewood).—*Volat.* oil fr. wood *Convolvulus Scoparius*, L.—*Uses*: Perfume.

*Oil, Rock.*—see **Petroleum**

### Oil Rose

(Otto, Essence, or Attar, of Rose).—*Volat.* oil distilled fr. fresh fls. *Rosa damascena*, Miller.—*Pale-yellowish, transp. liq.*—*Constit.*: Chiefly the odorous geraniol,  $C_{15}H_{25}O$ , w. citronellol & stearopten.—Sp. Gr. 0.855–0.865 at 25° C., U. S. P.—*Sol.* E.; 33 A.—Solidifies in the cold.—*Uses*: Perfume.

*Oil Rose Geranium.*—see **Oil Geranium**

### Oil Rosemary

*Volat.* oil fr. fresh flowering tops of *Rosmarinus*

*officinalis*, L.—*Colorl.* or pale-yellow liq.—Sp. Gr. 0.895–0.915 at 15° C. (0.894–0.912 at 25° C., U. S. P.).—*Sol.* A., E., glaci. acetic acid.—*Constit.*: Camphor., borneol, cineol, *d*- & *l*-pinene, & camphene.—*Opt. Rot.*, not above +15° in a 100 Mm. tube at 25° C.—*Stim.*; Emmen.; Rubefacient.—*Uses*: Chiefly for liniments; somet. in amenor.—*Dose* 3–6 m (0.2–0.36 Cc.).

*Oil Rosewood.*—see **Oil Rhodium**

### Oil Rue.—French

*Volat.* oil fr. *Ruta graveolens*, L.—*Yellowish to greenish liq.*—Sp. Gr. 0.830–0.840.—*Sol.* A.—*Constit.*: Methylnonylketone.—*Sl. dextrorotatory*.—*Irritant*; Emmen.; Rubefacient; Anthelmintic; Antiepileptic.—*Uses*: *Extern.*, amenor., menor., & as vesicant & rubefacient; v. irritating to intestines, when swallowed.—*Dose* 2–5 m (0.12–0.3 Cc.) on sugar.

*Oil "Rusc."—see Oil Birch Wood*

### Oil Santalwood.—East-Indian

(Oil of White, or Yellow, Sandalwood).—*Volat.* oil dist. fr. wood *Santalum album*, L.—*Yellowish, or pale straw, somewh. thick liq.*; arom. odor; spicy taste.—*Sol.*, eas. A.—*Constit.*: Santalol,  $C_{15}H_{25}O$ , & santalal,  $C_{15}H_{24}O$ .—Sp. Gr. 0.975–0.985 at 15° C.; (0.965–0.975 at 25° C., U. S. P.).—*Opt. Rot.*, not less than -16° or more than -20° in a 100 Mm. tube at 25° C.—*Antiseptic.*—*Uses*: Gonorr., gleet, bronch., & inflam. of muc. membr. generally; also perfume.—*Dose* 10–20 m (0.6–1.3 Cc.) in capsules or mixture.

### do.—West-Indian

*Volat.* oil fr. an undetermined tree (probably *Amyris balsamifera*, L., a Rutaceae) of Venezuela.—Sp. Gr. 0.963–0.967 at 15° C.—*Yellow to pale straw-color*, thick oil.—*Opt. Rot.* +26°.—*Sol.*, sl. A.—*Uses*: As of the East-Indian oil.

### Oil Sassafras

*Volat.* oil fr. root & root-bark *Sassafras variifolium*, O. Kuntze.—*Yellowish to reddish-yellow liq.*—*Constit.*: Chiefly safrol,  $C_{10}H_{10}O_2$ , w. eugenol, pinene, phellandrene, & camphor.—Sp. Gr. 1.065–1.075 at 25° C. (U. S. P.).—*Opt. Rot.* +1° to +4° in a 100 Mm. tube at 25° C.—*Sol.* 4–5 A., carbon disulphide, & glacial acetic acid.—*Tonic*; Arom.; Carmin.—*Uses*: Flavoring.—*Extern.*, as appl. to insect bites & stings, & to correct odor of ill-smelling remedies.—*Dose* 1–2 m (0.06–0.12 Cc.).

### do.—2-fold, free fr. terpenes

### Oil Savine

*Volat.* oil fr. fresh tops *Juniperus Sabina*, L. (Savin).—*Colorl.* or yellowish liq.—Sp. Gr. 0.905–0.930 at 15° C.; (0.903–0.923 at 25° C., U. S. P.).—*Constit.*: Pinene, cadinene, sabinol,  $C_{10}H_{16}O$ .—*Opt. Rot.* +40° to +60° in a 100 Mm. tube at 25° C.—*Sol.* A., glacial acetic acid.—*Irritant*; Rubefacient; Emmen.—*Uses*: *Intern.*, amenor. & menor.—*Extern.*, rheum. &

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Esarine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



alopecia pityroides.—*Dose*  $\frac{1}{2}$ –2 ℥ (0.03–0.12 Ce.).—*Appl.*, in 1–10 alcoh. sol. in alopecia.—*Antid.*, emetics, stomach siphon, oils, mucilage, opium, & brandy.—*Caut.* Poison!

*Oil Seneca.*—see **Petroleum**

### Oil Sesame

(Benne Oil; Teel Oil).—Fixed bland oil fr. seeds *Sesamum indicum*, L.—Yellow liq.—*Sp. Gr.* 0.921–0.923 at 15° C.—*Constit.*: Olein, stearin, palmitin, myristin, linolein, sesamin,  $C_{11}H_{12}O_2$ .—*Sol.* E., C., carbon disulphide.—*Lax.*, Nutrient.—*Uses*: As of olive oil or almond oil.—*Techn.*, in manuf. oleomargarine, soap, & cosmetics.—*Dose* 4–8 dr. (15–30 Ce.).

*Oil Sesame, Iodized.*—see **Iodipin**

### Oil Spearmint

Volat. oil fr. *Mentha viridis*, L.—Colorl., yellowish, or greenish-yellow liq.—*Sp. Gr.* 0.930–0.940 at 15° C.—*Opt. Rot.*, up to –43°.—*Constit.*: *l*-carvone,  $C_{10}H_{14}O$ , carvone,  $C_{10}H_{16}$ , pinene.—*Sol.* A., E., C., glac. acetic acid, carbon disulphide.—*Carmin.*; *Stim.*; *Antisep.*—*Uses*: Flatulence, colic, dysent., rheum., neural., &c.—*Dose* 2–6 ℥ (0.12–0.36 Ce.).

### Oil Sperm

Fr. fat of *Physeter macrocephalus*, L. (Sperm Whale).—Yellow liq.—*Sp. Gr.*, abt. 0.879.—*Uses*: Pharm. & techn.

### Oil Spike

Volat. oil fr. lvs. & tops *Lavandula Spica*, Cav.—*Sp. Gr.* 0.905–0.920.—*Opt. Rot.* +3°.—*Sol.* A., oil turpentine.—*Constit.*: Camphor, cineol, pinene(?), camphene, linalool, borneol, & perhaps also geraniol & terpineol.—*Carmin.*; *Stim.*; Rubefacient.—*Uses*: *Extern.*, rheum., neural., &c. Also techn.

*Oil Spruce, Norway.*—see **Oil Pinus Picea**

### Oil Storax

Volat. oil fr. storax.—*Sp. Gr.* 0.890–0.900.—*Uses*: Perfume.

### Oil Sumbul

Volat. oil fr. root *Ferula Sumbul*, Hook. fil.—*Sp. Gr.*, abt. 0.954.—*Tonic*; *Carmin.*; Antispasm.—*Uses*: Perfume.

*Oil Sweet Flag.*—see **Oil Calamus**

### Oil Tansy

Volat. oil fr. lvs. & tops *Tanacetum vulgare*, L.—Yellow liq.—*Sp. Gr.* 0.925–0.950 at 15° C.—*Constit.*: Thujon,  $C_{10}H_{16}O$ , borneol, camphor.—*Opt. Rot.* +30 to +45°.—*Sol.* A., E., C.—*Anthelm.*; *Antisep.*; Emmen.—*Uses*: Amenorr., dysmenorr., worms, & hyst.—*Extern.*, in liniments & oints.—*Dose* 1–3 ℥ (0.06–0.2 Ce.).—*Max. D.* 10 ℥ (0.6 Ce.).—*Caut.* Poison!

### Oil Tar

Volat. oil fr. wood tar.—Reddish-brown liq.—*Sp. Gr.*, abt. 0.970 at 15° C.—*Sol.* A., E.—*Anti-*

septic.—*Uses*: *Intern.*, bronch. affect.—*Extern.*, skin dis.—*Dose* 1–5 ℥ (0.06–0.3 Ce.).

*Oil Teel.*—see **Oil Sesame**

### Oil Theobroma

(Cacao Butter).—Fixed oil expressed fr. roasted seeds *Theobroma Cacao*, L.—Yellowish, brittle solid; choc. odor & taste.—*Sp. Gr.* 0.995 at 15° C.; (0.970–0.976 at 25° C., U. S. P.).—*Constit.*: Stearin, olein, & glycerides of other fatty acids.—*Sol.* E., C., B.; 100 cold absol. A.; 20 boil. absol. A.; oils.—*Melt.* 30–35° C. or higher.—*Uses*: Pharm. in supposit. & oints.—*Techn.*, in manuf. chocolates, &c.

### Oil Thuja

(Oil of Arbor Vitæ or of White Cedar).—Essential oil fr. lvs. *Thuja occidentalis*, L.—Emmen.; Tonic; Antisep.—*Uses*: *Extern.*, skin dis. & perfume.

### Oil Thyme

(Often misnamed "Oil of Origanum").—Volat. oil fr. lvs. & fl. tops *Thymus vulgaris*, L.—Colorl. liq.—Chief constit., thymol,  $C_{10}H_{14}O$ ; also carvacrol,  $C_{10}H_{14}O$ ; somet. the latter alone; also pinene, linalool, cymol, & bornyl acetate.—*Sp. Gr.* 0.900–0.930 at 25° C.—*Opt. Rot.*, not above –3° in a 100 Mm. tube at 25° C.—*Sol.* A., E., C., carbon disulphide.—*Antisep.*; *Stim.*—*Uses*: *Intern.*, collapse, bronch. affect., colic, catarrh.—*Extern.*, pruritus, skin dis.; fragr. antisep. for the bath.—*Dose* 3–15 ℥ (0.2–1 Ce.).

do.—5-fold, free fr. terpenes

Contains chiefly thymol.

### Oil Tobacco

(Empyreumatic Oil of Tobacco).—Volat. oil fr. lvs. *Nicotiana Tabacum*, L.—Dark-brown liq.; disagre. tobacco odor; acrid taste.—Sedative.—*Caut.* Poison!

### Oil Turpentine Merck.—Rectified—Highest Purity, Medicinal (1

Colorl. oil; freed fr. unpleas. odor & taste by treatm. w. NaOH & distillation.—Colorl. liq.—*Sp. Gr.* 0.860–0.865 at 25° C.—*Boil.* 155–162° C.—*Sol.* C., B., E., oils; alm. insol. W.—*Anthelm.*; *Antisep.*; *Diuret.*; *Stim.*; Rubefac.; Hemostat.—*Uses*: *Intern.*, rheum., sciatica, pulmon. & uterine hemorrhages (as hemostatic); in gonorr. & vesical catarrh (to check secretion); in dropsy (as diuret.); in typhoid (as stim.); also in dysentery, puerperal fever, tenia (as anthelm.), lumbago, gleet, leucor., whoop-cough, calculi, retention of urine, amenorr., & as antidote in phosphorus poisoning.—*Extern.*, in linim. or oint. (1:3).—*Dose* 10–30 ℥ (0.6–2 Ce.) every 4 hrs., best in emuls. or in gelat. caps.—For tape-worm, 1–2 fl. dr. (4–8 Ce.).—For internal use only the rectified oil should be used.

do.—Crude

(1 Spirit of Turpentine).—*Uses*: Techn., in paints, varnishes, & as solvent for oils, resins, &c.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Oil Urostigma*.—see **Oil Murure**

### **Oil Valerian**

Volat. oil fr. rhizome & root *Valeriana officinalis*, L.—Brownish liq.—Sp. Gr. 0.94–0.95.—*Constit.*: Pinene, limonene, borneol, bornyl formate, bornyl acetate, bornyl isovalerate.—*Sol.* A., E., C.—*Stimulant*.—*Uses*: Hyst., chorea, restlessness, epilepsy, low fevers, headache, hypochondriasis, & var. nerv. disturbances.—*Dose* 1–5  $\text{m}$  (0.06–0.3 Cc.) several t. p. d. in hysteria; up to 20  $\text{m}$  (1.3 Cc.) in epilepsy.

*Oil Verbena*.—see **Oil Lemon Grass**

*Oil Vitriol*.—see **Acid Sulphuric**

### **Oil Wax**.—Colorless, Rectified

Volat. empyreumatic oil fr. destruct. distil. of yellow wax.—Colorl. only when fresh; darkens by age.—*Uses*: Formerly as embrocation in rheumatism.

do.—Dark, Rectified

### **Oil Wine Merck**.—True.—Heavy (8

(So-called "Heavy" Oil of Wine).—A final prod. of distil. wine-yeast & water w. large excess of sulphuric acid, & also by-product in manuf. sulphuric ether.—*Constit.*: Ethyl sulphate, etherin, & etherol.—Yellowish, oily liq.; penetrating odor; sharp, bitter taste.—Sp. Gr. 1.095–1.130.—*Sol.* A., E.; sl. in W.—*Boil.* 280° C.—*Uses*: Pharm., for preparing Oil Ethereal (*q.v.*).—*Techn.*, for flavoring brandy.

do. Merck.—Light (5

*Oil Wintergreen*.—see **Oil Betula**; **Oil Gaultheria**

*Oil Wintergreen, Synthetic or Artificial*.—see **Methyl Salicylate**

*Oil Wormseed, American*.—see **Oil Chenopodium**

### **Oil Wormseed, Levant**

Volat. oil fr. fls. *Artemisia Cina*, Berg et Schmidt (*A. pauciflora*, Weber).—Yellowish-green liq.—*Constit.*: Chiefly cineol,  $\text{C}_{10}\text{H}_{18}\text{O}$ .—Sp. Gr., abt. 0.930.—*Sol.* A., E.—*Anethelm.*; Tonic.—*Dose* 1–3  $\text{m}$  (0.06–0.2 Cc.).

*Oil Wormwood*.—see **Oil Absinthium**

### **Oil Yarrow**

(Oil of Milfoil).—Volat. oil fr. lvs. & tops of *Achillea Millefolium*, L.—Blue liq.—*Constit.*: Cineol.—Sp. Gr. 0.910–0.920.—*Sol.* A., E.—Tonic; Astring.; Emmen.—*Uses*: Amenorr., colds, dysmenorr., &c.—*Dose* 1–5  $\text{m}$  (0.06–0.3 Cc.).

### **Oil Ylang Ylang**

(Oil Cananga).—Volat. oil distil. in the Philippine Islands, fr. fls. *Cananga odorata*, Hook. fil. & Thomp.—Sp. Gr., abt. 0.940–0.955.—*Antiseptic*.—*Uses*: Perfume.

### **Ointment Mercurial** (1

Mixt. mercury & fats.—50% metallic mercury in state of very fine subdivision.—Alter.; Antiseph.; Antisyph.—*Uses*: Vener. sores, gland.

swellings, skin dis., pediculi, chilbl., ulc., small-pox pustules, inflamed eyes, syphilis (inunction cure).—*Appl.* 20–40 grains (1.3–2.6 Gm.) by inunction 20 to 30 times, in syphilis, the inunction being made every other day on another part of the body, beginning with the leg, then on the thigh, forearm, upper arm, & abdomen. In eye affections, as oint. (1:9) combined w. narcotic extracts & opium.—*Dose*: Intern., as pills,  $1\frac{1}{2}$ -3 grains (0.1–0.2 Gm.) 2–3 t. p. d.

**Ointment Mercurial Merck**.—Dilute (1 (Blue Ointment).—33 $\frac{1}{3}$ % metal. mercury.—*Uses*: As preceding.

### **Oleander**

(Laurier Rose).—Lvs. & bark of *Nerium Oleander*, L. Apocynaceae.—*Habit.*: Mediterranean region, & cultiv. in subtropical countries.—*Etymol.*: Fr. "nerion," the ancient Grk. name for the oleander. "Oleander" is a corruption of Lat. "olea," olive tree, & "laurus," laurel.—*Constit.*: Lvs.: Oleandrin; nerin (nererin); neranthin.—*Bark*: Rosaginin; nerin; volat. oil; fluorescent subst. like umbelliferon.—*Cardiac Tonic* & Diur.—*Uses*: Epilepsy, valvular affect.—*Doses*: *Bark*: 1–3 grains (0.06–0.2 Gm.).—*Tinct.* (1:10) 25–50  $\text{m}$  (1.6–3.3 Cc.).—*Lvs.*: *Tinct.*, 20  $\text{m}$  (1.3 Cc.).

### **Oleandrin**

Glucoside fr. lvs. *Nerium Oleander*, L.—Wh., cryst. powd.—Heart Stim.—*Uses*: Instead of digitalin.—*Caut.* Poison!

**Oleates**.—see **Aconitine**, **Ammonium**, **Atropine**, **Barium**, **Bismuth**, **Calcium**, **Cocaine**, **Copper**, **Iodoform**, **Iron**, **Lead**, **Manganese**, **Mercury**, **Mercury & Morphine**, **Morphine**, **Nickel**, **Potassium**, **Quinine**, **Sodium**, **Strychnine**, **Veratrine**, & **Zinc**, **Oleate**

**Olein**.—see **Triolein**

### **Oleocresote**

(Creosote-oleic Ester; Creosote Oleate).—Yellowish, oily liq.—Sp. Gr. 0.950 at 15° C.—*Sol.* E., C. B.—*Antiseptic*.—*Uses*: Catarrhal affect. of respir. org., chronic bronch., serof., & tuberculosis.—*Doses*: Adults, 40–160 grains (2.6–10.6 Gm.) p. d.; children, 8–15 grains (0.5–3 Gm.) p. d., administered as emulsion.

### **Oleoguaiacol**

(Guaiacol Oleate; Guaiacol-oleic Ester).—React. prod. oleic acid, guaiacol, & phosphorus trichloride.—*Misc.*, fatty oils, E., B., C., &c.—*Sol.* A.; insol. W.—*Antiseph.*; *Antituberc.*—*Dose* 5–10  $\text{m}$  (0.3–0.6 Cc.), 3 t. p. d., in capsules.

**Olorcsin Aspidium**.—see **Oleoresin Male Fern**

### **Oleoresin Capsicum Merck**.—U. S. P. (25

Fr. fruit *Capsicum fastigiatum*, Blume (Cayenne, or African, Pepper), by acetone.—Contains the active constituent of capsicum (capsaicin).—*Sol.* A., E.—*Rubefacient*; Stim.—

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Uses Intern.*, flatulence, & to arouse appetite.—*Extern.*, dil. w. soap linim. or oliveoil in lumbago, neural, & rheumat. affect.—*Techn.*, imparting a pungent taste to liquors for mixed pickles, &c.—*Dose*  $\frac{1}{4}$ –1  $\text{m}$  (0.015–0.06 Gm.), highly diluted once or twice daily.

**Oleoresin Cubeb Merck.**—*U. S. P.* (5

Fr. fruit Piper Cubeba, L. fil., by alcohol.—*Sol.* A., F.—*Antiseptic*, Expector.—*Uses*: Gonorr., bronch., & dis. of muc. membr.—*Dose* 5–30  $\text{m}$  (0.3–2 Cc.) several t. p. d. in pills or caps.

**Oleoresin Ginger.**—*U. S. P.*

Fr. rhizome Zingiber officinale, Roseoe, by acetone.—*Sol.* A., F.—*Carmin.*; Stim.—*Uses*: Dysent., colic, dyspep., chills, colds, &c.—*Dose*  $\frac{1}{2}$ –2  $\text{m}$  (0.03–0.12 Cc.), highly diluted.

**Oleoresin Lupulin.**—*U. S. P.*

Fr. glandular powd. fr. strobiles of Humulus Lupulus, L., by acetone.—*Nar.*; Tonic; Sed.; Antispasm.—*Uses*: Insom., nervousn., delir. trem., dyspep.—*Dose* 2–5 grains (0.12–0.3 Gm.).

**Oleoresin Male Fern Merck** (3

(Extract Aspidium or Male Fern).—Ether. (or acetone) extr. of rhizome Dryopteris Filix-mas, Schott. & D. marginalis, Asa Gray.—Thick, greenish-brown liq.; bitter, unpleas. taste.—*Effic.* & safe Anthelm.—*Doses*: In *Tania solium* (the usual kind of tapeworm)  $2\frac{1}{2}$ –3 dr. (10–12 Gm.), in *Tania medicandellata* 3–4 dr. (12–16 Gm.); taken in 3 portions at intervals of  $\frac{1}{2}$  hr., in capsules, followed if necessary in 1–2 hours by calomel and jalap.—*Caut.* Shake well before dispensing.—*N. B.*: Merck's Oleoresin of Male Fern exceeds the requirements of the *U. S. P.*, and conforms to the stricter demands of the Ph. G. III. Merck's preparation is made from rhizomes of a *pistachio-green* color inside, and only the crop of each current year is used.

**Oleoresin Matico**

Ether. extr. fr. lvs. Piper angustifolium, R. & P.—Stim.; Tonic; Astring.; Hemost.—*Uses*: Gonorr., gleet, cystitis, inflam. of kidneys, & gen.-urin. org., catarrh, epistax. & hematuria.—*Dose* 3–15 grains (0.2–1 Gm.).

**Oleoresin Mezereum**

Ether. extr. of bark Daphne Mezereum, L., & o. sp.—Alter.; Stim.; Rubef.—*Uses*: Intern., syph., scrof. affect., &c.—*Extern.*, chiefly as a counter-irritant.—*Dose*  $\frac{1}{2}$ –1  $\text{m}$  (0.03–0.06 Cc.).

**Oleoresin Pepper.**—*U. S. P.*

Acetone extr. of fruit Piper nigrum, L.—Carmin.; Stim.; Antipyr.—*Uses*: Adjuvant to antipyrhetics & tonics; also for flatulence, dyspep., & ague.—*Dose*  $\frac{1}{4}$ –1  $\text{m}$  (0.015–0.06 Cc.).

**Olibanum**

(Frankincense; Gum Thus).—Gum resin fr. Boswellia Carterii Birdwood, & other spec. of Boswellia. Burseraceae.—*Habit.*: Nubia; Egypt; Somaliland.—*Etymol.*: Medieval Lat. "oli-

banum," fr. Grk. "libanos," incense, fr. Arabic "libin."—*Constit.*: Volat. oil; resin; bitter principle; gum.—*Stim.*; Expector.—*Uses*. Chiefly in plaster, or fumigations.—*Dose* 15–30 grains (1–2 Gm.) in emuls.

**Olut-Kombul Juice**

Fr. bark of Abroma angustum.—Emmen.—*Uses*: Congestive & neuralgic dysmenorr., & in mixed forms of this disease.—*Dose* 30 grains (2 Gm.) daily for a week, beginning at the appearance of the hemorrhage.

*Omal* = Trichlorophenol.—see Trichlorophenol

*Omegachlorotoluene.*—see Benzyl Chloride

**Ononin Merck** (700

Glucoside fr. root Ononis spinosa, L. (Rest Harrow).— $\text{C}_{25}\text{H}_{26}\text{O}_{11}$ .—Wh., cryst. powd.—*Sol.*, hot A., & sl. in hot W.—*Melt.*, above 200° C.

**Ononis**

(Rest Harrow).—Herb & root of Ononis spinosa, L. Papilionaceae.—*Habit.*: Europe.—*Etymol.*: Grk. "onos," ass, donkey, i.e., the plant is a favorite food of the ass. "Spinosa," spiny, thorny, i.e., the ends of the young shoots are spiny.—*Constit.*: Root contains volat. oil; ononin,  $\text{C}_{25}\text{H}_{26}\text{O}_{11}$ ; ononid,  $\text{C}_{18}\text{H}_{22}\text{O}_8$ ; onocerin,  $\text{C}_{25}\text{H}_{32}(\text{OH})_2$ ; tannin.—*Diuret.*; Aper.; Lithon- triptic.—*Dose* 2 fl. oz. (60 Cc.) of 1–2:16 decoct. of root.

*Opianyl.*—see Meconin

**Opium.**—*U. S. P.*

(Gum Opium; Crude, or Natural, Opium).—Concrete milky exudation from unripe caps. Papaver somniferum, L. Papaveraceae; cont. not less than 9% morphine.—*Habit.*: Asia Minor; Persia; China; Africa; India; cultiv. in Greece, England, U. S., &c.—*Etymol.*: Grk. "opion," diminutive of "opos," poppy juice (so named by Pliny), fr. the Persian name for opium, "abc-oon."—*Constit.*: Opium alkaloids; meconin; meconic acid; meconoisin; glucose; pectin; caoutchouc; wax.—*Nar.*; Sed.; Anod.; Antispasm.; Hypn.; Diaphor.—*Uses*: Pain, diar., dysent., cough, pneum., bronch., pleurisy, peritonitis, enteritis, typhlitis, &c.—*Techn.*, as source of morphine and o. opium alkaloids, & for manufacturing powdered, granulated, & smoking opiums.—*Extern.*, in 1:10–20 oint.; & in suppositories & vaginal ovules.—*Doses*:  $\frac{1}{4}$ –3 grains (0.015–0.2 Gm.) in powd., pill, or tinct.—*Max. D.* 3 grains (0.2 Gm.) single; 8 grains (0.5 Gm.) daily.—*Aqu. extr.*,  $\frac{1}{4}$ –1 grain (0.015–0.06 Gm.); *Max. D.* 2 grains (0.12 Gm.) single, 5 grains (0.3 Gm.) daily.—*Tinct.*, 5–15  $\text{m}$  (0.3–1 Cc.).—*Antid.*, emetics, stomach siphon, potass. permang., atropine, tannin, strong black coffee, brandy, oxygen, friction, electricity. Keep in constant motion.—*Caut.* Poison!

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S on your orders**

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Opium Granulated Merck.—U. S. P.**

Opium dried at not above 85° C. & reduced to coarse powd.; cont. 12-12.5% morphine.

**Opium Powder Merck.—U. S. P.**

Opium dried at not above 85° C. & reduced to v. fine powd.; cont. not less than 12% or more than 12.5% morphine. Desired strength obt. by blending powders of higher & lower morphine percentage strengths, or by add. milk sugar. — Stim.; Nar.; Antispasm.; Hypn.; Anod. — *Uses*: Insom., neural., colic, spasms, dyspep., rheum., diabetes, pleurisy, peritonitis, cancer, tetanus, delirium tremens; cholera, dysent., restlessness, consumption, &c.; ease pain, give rest & sleep, check morbid secretions, relieve cough, & allay irritability. — *Doses*: Powd.:  $\frac{1}{2}$ -2 grains (0.03-0.12 Gm.). — Extr.:  $\frac{1}{4}$ -1 grain (0.015-0.06 Gm.); Pills, 1 grain (0.06 Gm.); Dover's Powder, 5-20 grains (0.3-1.3 Gm.); Tinct., 5-20 M (0.3-1.3 Ce.); Camph. Tinct. 1-4 fl. drs. (4-15 Ce.); Troches Liquorice & Opium ( $\frac{1}{12}$  grain [0.005 Gm.] O.); Vinegar, 5-20 M (0.3-1.3 Ce.); Wine, 5-20 M (0.3-1.3 Ce.). — *Incomp.* (of liq. opiates), alkalies; alkaloidal precipitants; alkaline carbonates; cinchona; copper & iron salts; kino; lime-water; mercury bichloride; nutgall; silver nitrate. — *Antid.*, warm coffee; atropine or strychnine hypoderm.; emetics, stomach siphon, warm drinks, artif. respir.; potass. permangan.; constant motion.

*Note*.—As the strength & quality of this powder are constantly controlled by assay, the action of the drug is always to be relied upon.

**do. Merck.—Deodorized.—U. S. P.**

(Denarcotized Opium). — Powd. opium deprived of its narcotine by macerating w. successive quant. of purif. petrol. benzine, & containing 12-12.5% morphine. — *Uses*: As of opium, but free from the disagreeable effects of latter. — *Doses*:  $\frac{1}{4}$ -2 grains (0.015-0.12 Gm.). — Tinct., 5-15 M (0.3-1 Ce.). — *Caut.* Poison!

**Opobalsam.—see Balsam Tolu****Opocerebrin**

Fr. gray brain matter. — *Uses*: Chorea, hysteria, insomnia, chron. alcoholism, anemia, chlorosis, w. pronounced symptoms of cerebral disturbance, epilepsy (in period of excitement), & bradycardia. — *Dose* 3 grains (0.2 Gm.) 3 t. p. d. — In epilepsy, the opocerebrin medication is conjoined w. the Toulouse-Richet dietetic treatm.

**do. Poehl.—For hypodermic use**

*Uses*: As of preced. — *Dose* 1-2 injections p. d.

**Opohepatoidin**

Fr. the liver. — *Uses*: Jaundice, hemoptysis, epistaxis, & hepatic cirrhosis. — *Dose* 8 grains (0.5 Gm.) single; 25-60 grains (1.6-4 Gm.) daily.

**Opohypophysin**

Fr. pituitary bodies. — *Uses*: Acromegaly. — *Dose* 1 grain (0.06 Gm.).

**Opolienin**

Fr. spleen. — *Uses*: Splenic hypertrophy, mala-

rial cachexy, leukemia, & pseudoleukemia. — *Dose* 30-90 grains (2-6 Gm.) single; 60-180 grains (4-12 Gm.) p. d.

**Opomedullin**

Fr. red bone marrow. — *Uses*: Pernicious anemia, pseudoleukemia, chlorosis, & neurasthenia. — *Dose* 3-15 grains (0.2-1 Gm.) single; up to 90 grains (6 Gm.) p. d.

**Opöörchidin**

Fr. testes of bullocks. — *Uses*: Affect. of spinal cord, & o. nerv. diseases. — *Dose* 8-12 grains (0.5-0.8 Gm.) single; 25-45 grains (1.6-3 Gm.) p. d.

**Opöössin**

Fr. yellow bone marrow. — *Uses*: Rachitis & osteomalacia. — *Dose* 3-15 grains (0.2-1 Gm.) single; up to 90 grains (6 Gm.) p. d.

**Opöövulin**

Fr. ovaries. — *Uses*: Climacteric affect. of all kinds, & particularly after ovariectomy; also hysteria & chlorosis. — *Dose* 3-12 grains (0.2-0.8 Gm.) single; 10-45 grains (0.6-3 Gm.) p. d.

**Opoprostatin**

Fr. prostate gland. — *Uses*: Prostatic hypertrophy. — *Dose* 3 grains (0.2 Gm.) single; 12 grains (0.8 Gm.) p. d.

**Oposuprarenalin**

Fr. suprarenal capsules. — *Uses*: Diabetes insipidus, Addison's disease, menopause, & neurasthenia. — *Dose* 3-6 grains (0.2-0.36 Gm.) single; 6-12 grains (0.36-0.8 Gm.) p. d.

**Opothyroidin**

Fr. thyroid gland. — *Uses*: Myxedema, cretinism, cachexia following excision of thyroid gland, obesity, skin diseases (psoriasis, eczema, &c.), agalactia, hemophilia, torticollis, &c. — *Dose* 1-2 grains (0.06-0.12 Gm.) single;  $2\frac{1}{2}$ -10 grains (0.15-0.6 Gm.) p. d.

**Orange I.—see Tropæoline 000 No. 1****Orange II.—see Orange R F; Tropæoline 000 No. 2****Orange III.—see Methyl Orange****Orange IV.—see Diphenylamine Orange****Orange Berries (Peas)**

(Orangettes; Orange Peas). — Immature fruit of Citrus Aurantium, L. Aurantiaceæ. — *Habit.* & *Etymol.*: See Orange Peel, Bitter. — *Constit.*: Volat. oil; hesperidin, C<sub>22</sub>H<sub>26</sub>O<sub>12</sub>. — Bitter Tonic; also as extra peas. — *Techn.*, in manuf. liquors.

**Orange Extra.—see Tropæoline 000 No. 2****Orange Flowers**

Dried flowers of Citrus Aurantium, L. Rutaceæ. Aurantiaceæ. — *Habit.*: Mediterranean basin; cultiv. in tropical and sub-tropical countries. — *Etymol.*: See Orange Peel, Bitter. — *Constit.*: Volat. oil; bitter principle. — *Uses*: Nervine. Chiefly for making orange-flower water.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Trichloride; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Orange G G Merck** (8)  
(Sodium Azobenzobetanaphtholdisulphonate).  
—Yellowish-red powd.—*Sol.* W. w. orange-yellow color.—*Uses:* Dyeing wool.

**Orange G S.**—see **Diphenylamine Orange**

### Orange Leaves

Lvs. of *Citrus Aurantium*, L. Rutaceae. Aurantiaceae.—*Habit.* See Orange Flowers.—*Etymol.*: See Orange Peel, Bitter.—*Constit.*: Volat. oil; hesperidin.—*Tonic*; Antispasmodic.

**Orange N.**—see **Diphenylamine Orange**

### Orange Peel, Bitter.—U. S. P.

(Curaçao Orange; Seville Orange).—Dried rind of the fruit of *Citrus vulgaris*, Risso. Rutaceae. Aurantiaceae.—*Habit.*: N. India; cultiv. near Mediterranean Sea, Spain, W. Indies, Florida, California, &c.—*Etymol.*: "Orange" fr. Sanskrit "nagarange," fr. Arab "naranj," or E. Indian "naranja" (elephant's fruit). "Citrus" fr. Grk. "kitrion," after "Kitron," a town in Judea where the fruit formerly flourished.—*Constit.*: Etheral oil; hesperidin,  $C_{22}H_{26}O_{12}$ ; narangin,  $C_{25}H_{26}O_{11} \cdot 4H_2O$ ; aurantiamarin; isohesperidin,  $C_{25}H_{26}O_{12} \cdot 2H_2O$ ; acrid resin; a tasteless acid,  $C_{16}H_{18}O_{14}$ ; gum; tannin(?).—*Stim.*; *Tonic*; *Carm.*; *Stomachic.*—*Uses:* Chiefly as a flavoring and corrig.—*Doses:* 15–30 grains (1–2 Gm.).—*Fld. extr.*, 15–60 M (1–4 Cc.).—*Alcoh. extr.*, 2–10 grains (0.12–0.6 Gm.).

### Orange Peel, Sweet.—U. S. P.

(Sweet Orange; Portugal Orange; China Orange).—Rind of fresh fruit of *Citrus Aurantium*, L. Rutaceae. Aurantiaceae.—*Habit.* & *Etymol.*: See Orange Peel, Bitter.—Closely resembles bitter orange peel, but has an orange-yellow color; sweetish, fragrant odor; arom., slightly bitter taste.—*Constit.*: Volat. oil; hesperidin,  $C_{22}H_{26}O_{12}$ ; fixed oil; resin; gum; tannin.—*Uses:* Arom.; solely for flavoring.

**Orange R.**—see **Orange T**

**Orange R F** (7)  
(Orange II).—Sodium salt of azobetanaphthol-sulphanilic acid.—Reddish-brown powd.—*Sol.* W.—*Uses:* Techn., as dye.

**Orange T Merck** (6)  
(Mandarin G. R.; Orange R.; Kermesin Orange).—Sod. salt of sulpho-orthotolueneazobetanaphthol.—Brick-red powd.—*Sol.* W.—*Uses:* Techn., to dye wool orange fr. an acid bath.

**Orangettes.**—see **Orange Berries**

**Orcanette.**—see **Alkanna**

**Orcin Merck** (100)  
Color, matter fr. orcin, by ammonia, water & air.— $C_{25}H_{24}N_2O_7$ .—Brownish-red cryst.—*Sol.* A., alkaline W.—The alcoh. solut. has a purple color, & is used in microscopy as a mordant in staining flagella, & as a test for the presence of

elastic tissue in sputum.—The alkaline solutions are violet.

### Orchil

(Archil; Orseille).—Coloring matter obtained fr. var. spec. of lichens, *Rocella tinctoria*, Acharius, Parmeliaceae, &c., by fermentation.—*Habit.* Mediterranean region; Canary Islands, Azores, &c.—*Etymol.*: Fr. "Orcellari," an Italian dyer (abt. 1300 A.D.) who introduced the dye.—*Constit.*: Orcin,  $C_7H_8O_2 \cdot H_2O$ ; orcein,  $C_{25}H_{24}N_2O_7$ .—*Uses:* Dye for wool & silk, both in weakly acid & weakly alkaline baths; particularly useful for production of mixed colors; not adapted for cotton.

### Orcin Merck.—Cryst. (35)

(Dioxytoluene; Methylresorcinol; Orcinol).—Phenolic substance fr. various spec. of *Rocella*.— $C_7H_8O_2 + H_2O$ , or,  $CH_3 \cdot C_6H_3(OH)_2 [1:3:5] + H_2O$ .—Wh. cryst.; intens. sweet, but unpleas. taste; reddens in air.—*Sol.* W., A., E.—*Melt.* 58–59° C.—Antiseptic.—*Uses:* Skin dis.—*Techn.*, as reagent for pentoses & pentosan (Bertrand's reaction).

**Orcinol.**—see **Orcin**

**Oregon Grape Root.**—see **Berberis Aquifolium**

### Oreoselinum

(Mountain Parsley).—Herb of *Athamanta* (*Pnecedanum*) *Oreoselinum*, L. Umbelliferae.—*Habit.*: Europe.—*Etymol.*: Grk. "oros," mountain, & "selinon," parsley, referring to the preference shown by the plant for mountainous localities.—*Constit.*: Volat. oil.—*Uses:* Diuretic, as decoct. (10–20:100).

### Orexine (20)

(Phenyldihydroquinazoline Tannate Kalle).—Fr. quinaline.— $C_{14}H_{12}N_2 \cdot (C_{14}H_{10}O_6)$ , or,  $C_6H_5 \cdot N \cdot CH_2 \cdot C_6H_4 \cdot N \cdot CH \cdot (C_{14}H_{10}O_6)$ .—Yellowish-wh., odorl., pract. tastel. powd.—*Sol.*, dil. hydrochloric acid; sl. in A.; insol. W.—Appetizer; Antiemetic.—*Uses:* Anorexia w. no gastric dis.; restore appetite in phth., chlorosis, cardiac dis., surg. operat., &c., also for vomit. of pregn. Contraindic. in excess acidity stomach & in gastric ulc.—*Dose* 8–12 grains (0.5–0.8 Gm.) 2 t. p. d., in wafers, powd., or 4 grain tabl. (orexoids), w. half a glass water.—*Incomp.*, iron preparations.

### Origanum

(Common Marjoram; Wild Marjoram).—Herb of *Origanum vulgare*, L. Labiatae.—*Habit.*: Europe; natur. in U. S.—*Etymol.*: Grk. "oros," mountain, & "ganos," beauty, referring to its favorite place of growth, handsome appearance, & aromatic odor.—*Constit.*: Volat. oil; tannin.—Antiscorbut.; *Stim.*; *Tonic*; Emmen.—*Uses:* *Extern.*, in fomentations.

#### do.—Cretan

(Spanish Hop).—Herb of *Origanum creticum*, L. Labiatae.—*Habit.*: Mediterranean region.—

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Etymol.*: See *Origanum*.—*Constit.*: Volat. oil; bitter principle; tannin.—*Uses*: In toothache.

*Origanum Dictamnus*.—see **Dictamnus**

### Ormosia

(Jamaica Bread Tree; Necklace Tree; Large Coral Bean).—Seed of *Ormosia dasycarpa*, Jacks. Papilionaceæ.—*Habit.*: Venezuela; West Indies.—*Etymol.*: Grk. "ormos," necklace, referring to the use of the pods; & "dasys," rough, raw, & "karpos," fruit, referring to the character of the fruit.—*Constit.*: Ormosine, a narcotic alkaloid.

### Ormosine Hydrochloride Merck (4000)

Hydrochloride of alkaloid fr. fruit *Ormosia dasycarpa*, Jacks.—Yellowish, coarse powd.—*Sol.* A., C.—*Melt.* 80° C.—*Hypn.*; *Sed.*; *Nar.*

### Orphol (16)

(Betanaphtholbismuth; Bismuth Betanaphtholate).— $\text{Bi}_2\text{O}_3(\text{OH}) \cdot \text{C}_{10}\text{H}_7\text{O}$ . — Grayish-yellow powd.; darkens somewh. in time.—*Sol.*, sl. A.; insol. W.—*Abt.* 76–77%  $\text{Bi}_2\text{O}_3$ .—*Antisept.*, like salol.—*Uses*: Affect. of intest.—*Dose* 8–15 grains (0.5–1 Gm.) 3 t. p. d.; half these doses for childr.

*Orpiment*.—see **Arsenic Sulphide, Yellow**

*Orpiment, Red*.—see **Arsenic Sulphide, Red**

*Orris*.—see **Iris Florentina**

*Orseille*.—see **Orchil**

### Orth's Lithium-Carmine

1 Gm. lithium carbonate, 2–3 Gm. carmine, & 100 Cc. W.—*Uses*: Staining nuclei.

### Orth's Picrolithium-Carmine

Orth's lithium-carmine (*q.v.*) w. picric acid added.—*Uses*: As of lithium-carmine, & stains like latter; may be used w. fresh material, or on that hardened by any process whatever.

*Orthoaminophenylglyoxalic Lactim*.—see **Isatin**

*Orthoaminotoluene* (or, -ol).—see **Toluidine, Ortho-**

*Orthochloronitrobenzene* (or, -zol).—see **Chloronitrobenzene, Ortho-**

*Orthocresolol*.—see **Cresolol, Ortho**

*Orthodiamidotolyl*.—see **Tolidin**

*Orthodihydroxyanthraquinone*.—see **Alizarin**

*Orthodimethylbenzene* (or, -zol). — see **Xylene, Ortho-**

*Orthodioxybenzene*.—see **Pyrocatechin**

*Orthodiphenylene-ethylene*.—see **Phenanthrene**

*Orthoethoxyanamonobenzoylamidoquinoline*. — see **Analgin**

*Orthoethylphenol*.—see **Phlorol**

**Orthoform** (28)  
(Methyl Ester of Para-aminometaoxybenzoic Acid).— $\text{COOCH}_3[1]\text{C}_6\text{H}_4\text{OH}[3]\text{NH}_2[4]$ .—Wh.,

odorl., cryst. powd.—*Sol.* A., E.; sl. W.—*Melt.* 120–122° C.—Local & intern. Anesth.; Anod.; Antisept.—*Uses*: Chiefly extern., on painful wounds, burns, toothache, &c.—*Appl.*, pure or in 10–20% mixtures with starch, talcum, &c., or in 10–20% oint.; w. equal quantity of arsenic, as appl. in epithelial carcinoma (1 part to 45–70 parts A. & W.).—*Intern.*, in round gastric ulcer.—*Dose* 8–15 grains (0.5–1 Gm.) several t. p. d.—*Incomp.*, antipyrine, bismuth subnit., formaldehyde, mercury bichloride, potass. permangan., silver nitrate, zinc chloride.

### Orthoform "New" (30)

(Methyl Ester of Metaminoparaoxbenzoic Acid).— $\text{COOCH}_3[1]\text{C}_6\text{H}_3\text{OH}[4]\text{NH}_2[3]$ .—Wh., cryst. powd.—*Sol.*, hot W., A., E.—*Melt.* 141–143.5° C.—Anod.; Antisept., & Local Anesthetic.—*Uses*: As of orthoform.

### Orthoform "New" Hydrochloride (35)

$\text{COOCH}_3[1]\text{C}_6\text{H}_3\text{OH}[4]\text{NH}_2[3]\text{HCl}$ .—*Uses*: As of orthoform.

*Orthomethylaminophenol*.—see **Anisidine, Ortho-**

*Orthomethylphenol*.—see **Cresol, Ortho-**

*Orthomonobromophenol*.—see **Monobromophenol, Ortho-**

*Orthomonobromotoluene* (or, -ol).—see **Toluene, Bromo-, Ortho-**

*Orthonitraniline*.—see **Nitraniline, Ortho-**

*Orthonitranisol*.—see **Nitranisol, Ortho-**

*Orthonitrobenzaldehyde*.—see **Nitrobenzaldehyde, Ortho-**

*Orthonitrophenol*.—see **Nitrophenol, Ortho-**

*Orthonitrophenol Methyl-ester*.—see **Nitranisol, Ortho-**

*Orthonitrotoluene* (or, -ol).—see **Nitrotoluene, Ortho-**

*Ortho-oxybenzaldehyde*.—see **Acid Salicylous**

*Ortho-oxybenzylalcohol*. — see **Diathesin; Saligenin**

*Ortho-oxytoluene* (or, -ol).—see **Cresol, Ortho-**

### Orthosiphon

(Java Tea).—Herb of *Orthosiphon stamineus*, Benth. Labiate.—*Habit.*: East Indies.—*Etymol.*: Grk. "orthos," straight, & "siphon," tube, i.e., the corona usually has a straight tube. "Stamineus," fr. Lat. "stamen," fr. Grk. "stemon," thread, also has reference to the staminate corona.—Small, oval, green leaves, finely toothed, & rolled like ordinary tea.—*Constit.*: Orthosiphonin (glucoside); volat. oil; considerable potass. salts.—*Uses*: Diuret. in urinary diseases & in renal gravel.—*Doses*: 15–20 grains (1–1.3 Gm.) daily.—*Fld. extr.*, 15–30  $\text{M}$  (1–2 Cc.); *Mar. D.* 120  $\text{M}$  (15 Cc.) p. day.

*Orthotolidin*.—see **Tolidin**

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Orthotoluic Nitrile.*—see **Toluic Nitrile**, **Ortho-**  
*Orthotoluylenediamine Hydrochloride.*—see **To-**  
**luylenediamine (Ortho-) Hydrochloride**  
*Orthotolylacetamide.*—see **Acetorthotoluide**  
*Orthoxylen (or, -ol).*—see **Xylene**, **Ortho-**  
*Orthoxylenol.*—see **Xylenol**, **Ortho-**  
*Orthoxylenolsalol.*—see **Xylenol (Ortho-) Salicy-**  
**late**

**Ortol** (15)  
 (Methylorthonitrophenol).—Accord. to Vogel,  
 a combin. of 2 mol. methylorthonitrophenol &  
 1 mol. hydroquinone.—*Uses:* Photogr. develop.

*Osmic-Acetic Acid.*—see **Hertwig's Osmic-Acetic**  
**Acid**

*Osmic Anhydride.*—see **(Acid) Osmic Anhydride**  
*Osmic-Silver Nitrate.*—see **Golgi's Osmic-Silver**  
**Nitrate**

*Osmic & Osmous Salts.*—see under **Osmium**

**Osmium Merck** (3750)  
*Etymol.*: Fr. Grk. "osme," odor, because of the  
 powerful odor of its highest oxide. Discovered  
 in 1803 by Tennant.—Metal.—Os.—Bluish-wh.,  
 lustr. metal like platinum.—Sp. Gr. 22.477 at  
 17°C., highest known.—*Uses:* Techn., in electric  
 incandescent bulbs.

**Osmium Chloride Merck** (3250)  
 (Osmous Chloride; Osmium Dichloride).— $\text{OsCl}_2$ .  
 —Dark-green, deliq. need.—*Sol.* W., A., E.—  
*Caut.* Keep fr. air.

*Osmium Dichloride.*—see **Osmium Chloride**

**Osmium-Iridium Alloy Merck** (1750)  
 (Iridium-Osmium Alloy).—Native in the Andes,  
 Urals, Rocky Mountains, & Australia.—Lustr.,  
 steel gray, diffic. mall., metal mass.—Sp. Gr.  
 19.3-21.1.—*Uses:* Techn., pointing gold pens.

*Osmium Tetroxide.*—see **(Acid) Osmic Anhydride**

**Osmium & Ammonium Chloride Merck** (2500)  
 (Ammonium-Osmic Chloride).— $\text{OsCl}_6(\text{NH}_4)_2$ .  
 —Red powd., or dark-red octahedral cryst.—*Sol.*  
 W., A.—43.5% osmium.

**Osmium & Potassium Chloride Merck** (2000)  
 (Potassium-Osmic Chloride).— $\text{K}_2\text{OsCl}_6$ .—Dark-  
 red, alm. black octahedral cryst.—*Sol.*, eas. W.,  
 A.—40.6% osmium.

**Osmium & Sodium Chloride** (2250)  
 (Sodium-Osmic Chloride).— $\text{Na}_2\text{OsCl}_6 \cdot 2\text{H}_2\text{O}$ .—  
 Red, rhomb. prisms.—*Sol.*, eas. W., A.—40.3%  
 osmium.—*Soluts.* osmium salts are v. unstable.

**Ostruthin Merck** (500)  
 Cryst. subst. fr. root *Imperatoria Ostruthium*,  
 L. (Masterwort).—Yellowish cryst.—*Sol.* A.,  
 E.; insol. W.—*Melt.* 119° C.

## Ostrya

(Ironwood; Hop-hornbeam; Lever-wood).—  
 Heart wood of *Ostrya virginica*, Willd. Betu-  
 laceae.—*Habit.*: Canada & eastern U. S.—*Ety-*  
*mol.*: "Ostrya" is the ancient classical Grk.  
 name for the plant. "Virginica" refers to the  
 habitat of this species.—*Tonic*; *Alter.*; *Antiper.*  
*Uses:* Intermit. fevers, neural., dyspep., &  
 scrofula.—*Dose:* Fld. extr., 30-60 m (2-4 Cc.).

## Ouabain

$\text{C}_{30}\text{H}_{46}\text{O}_{12}$ .—Glucoside fr. ouabaio root, an  
 Apocynaceae, & also found in one of the stro-  
 phanthus species (*S. gratus*).—Nacreous plates.  
 —*Sol.*, abt. 160 W.; more eas. sol. hot W., A.;  
 insol. C., absol. A., E.—*Melt.* 185-200° C.—  
*Uses:* As of strophanthin.—*Dose*  $\frac{1}{1000}$  grain  
 (0.00006 Gm.) 4 t. p. d. in whoop-cough in  
 children.—*Caut.* Exceed. poisonous!—See also  
**Strophanthin Cryst.**, Thoms

## Ovaraden

(26)  
 (Standardized Dried Extract Ovary, Knoll).—  
 1 part=2 parts fresh gland.—Grayish powd.  
 —*Nervine*; *Alter.*—*Uses:* Disorders accomp. meno-  
 pause or following ovariectomy; also chlorosis.  
 —*Dose* 15-30 grains (1-2 Gm.) 3 t. p. d.

## Ovarlin Merck

(40)  
 Dried ovaries of the cow; 1 part = 8 parts of  
 fresh cow's ovary.—Coarse, brownish powd.—  
*Nervine*; *Alter.*—*Uses:* Disorders accomp. meno-  
 pause or following ovariectomy; amenor.,  
 chlorosis, & affections due to atrophy & lesions  
 of the genitals.—*Dose* 3-6 grains (0.2-0.36 Gm.)  
 3 t. p. d., in pills or tablets.

*Orolecithin.*—see **Lecithin**

*Orovitellin.*—see **Vitellin, from Eggs**

*Oxalylurca.*—see **Acid Parabanic**

## Oxamethane Merck

(20)  
 (Ethyl Ester of Oxamic Acid).—Fr. oxalic  
 ether, by dry or alcoholic ammonia.— $\text{C}_4\text{H}_7\text{NO}_3$   
 or,  $\text{CO}(\text{NH}_2).\text{CO}(\text{OC}_2\text{H}_5)$ .—Wh. cryst.—*Sol.* A.  
 —*Melt.* 115° C.

## Oxamide Merck

(15)  
 (Ethane-diamide).— $\text{C}_2\text{H}_4\text{N}_2\text{O}_2$  or,  $\text{CO}(\text{NH}_2)_2$ .—  
 $\text{CO}(\text{NH}_2)$ .—Wh. powd.—Insol. W., A., E.

*Oxammonium Sulphate.*—see **Hydroxylamine**  
**Sulphate**

## Oxanilide Merck

(15)  
 (Diphenyloxamide).—By decomp. aniline oxal-  
 ate by heat.— $\text{CO}(\text{NH}_2)_2.\text{CO}(\text{NH}_2\text{C}_6\text{H}_5)_2$ .—  
 Nacreous scales.—*Sol.*, sl. in hot A.; insol. W.—  
*Melt.* 245° C.

*Oxaniline Hydrochloride.*—see **Amidophenol**  
**(Ortho-) Hydrochloride**

## Oxaphor

(30)  
 50% alcoh. solut. of oxycamphor.—*Uses* &  
*Doses:* See Oxycamphor.

*Ox-Bile Typhoid Diagnostic.*—see **Typhoid Ox-**  
**Bile Diagnostic**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Ox-Gall*.—see **Gall, Ox-**

*Ox-tongue*.—see **Bugloss**

**Oxycanthine Merck** (2500)

Alkaloid found together w. berberine in root *Berberis vulgaris*, L.— $C_{19}H_{21}NO_3$ , or,  $C_{19}H_{20}NO_2 \cdot OH$ .—Wh. to yellowish, cryst. powd.—*Sol.* A., E., C., B.—*Melt.* 210° C.

**Oxycanthine Sulphate Merck**.—Cryst. (1100)

$(C_{19}H_{21}NO_3)_2 \cdot H_2SO_4 + 4H_2O$ .—Wh., cryst. powd.—*Sol.*, hot W.—Paralyzes brain & spinal cord.—Subcut. lethal dose for rabbits,  $1\frac{1}{2}$ -3 grains (0.1-0.2 Gm.).

**Oxybenzaldehyde (Para-) Merck** (80)

(Paraoxybenzoic aldehyde).—Fr. phenol, by chloroform w. caustic soda & heat.— $C_7H_5O_2$ , or,  $C_6H_4(OH)CHO$  [4:1].—Colorl. need.—*Sol.* W., A., E.—*Melt.* 115° C.

**Oxycamphor**

$ClHOH.C_8H_{14}.CO$ .—Oxid'n-product of camphor.—Wh., cryst. powd.—*Sol.* 50 cold W.; more eas. hot W.; v. eas. A., E., C.—Sedative.—*Uses*: Chiefly cardiac dyspnea & asthma; also kidney affections.—Marketed as 50% alc. solut.—*Doses* (50% solut.): 5-20 m (0.3-1.3 Cc.) 3 t. daily; 45-60 m (3-4 Cc.) per day.—*Mar. D.* 120 m (8 Cc.) daily.

*Oxychlordinphenylquinazoline*.—see **Luteol**

*Oxyconiine*.—see **Conhydrine**

*Oxycymol*.—see **Carvacrol**

**Oxydendron**

(Sourwood; Sorrel Tree).—Leaves of *Oxydendron arboreum*, D. C. (*Andromeda arborea* L.), Ericaceae.—*Habit.*: Pennsylvania to Florida.—*Etymol.*: Grk. "oxys," sour, & "dendron," tree, referring to the sour taste of the leaves.—*Diur.*; *Refrig.*; *Tonic*.—*Uses*: Dropsy; dis. of genitourin. organs.—*Dose*: Fld. extr., 30-120 m (2-8 Cc.).

*Oxydimercurous-Ammonium Nitrate*.—see **Mercury Oxide, Black**

*Oxydimethylquinizine*.—see **Antipyrine**

**Oxydiphenylamine (Meta-)**

(Phenylaminophenol).—Obt. by heat. resorcinol w. aniline & calcium chloride— $C_{12}H_{11}NO$ , or,  $C_6H_5NH.C_6H_4(OH)$ .—Wh., pearly scales.—*Sol.* A.—*Melt.* 82° C.—*Boil.*, about 340° C.

*Oxyethylacetanilide*.—see **Acetphenetidín; Phenacetin**

*Oxyethyltrimethylammonium Hydroxide*.—see **Choline**

*Oxyhematin*.—see **Hematin**

**Oxyhydrastinine Merck**.—Cryst. (800)

Fr. hydrastinine, along w. hydro-hydrastinine, by potass. hydroxide.— $C_{11}H_{11}NO_3$ .—Wh., cryst. powd.—*Sol.* A., E., C.—*Melt.* 98° C.

*Oxymercuric Sulphate*.—see **Mercury Subsulphate**

*Oxymethylconiferin*.—see **Syringin**

*Oxymethylene*.—see **Formaldehyde**

*Oxymethylene Acetate*.—see **Methylene Diacetate**

*Oxyneurine Hydrochloride*.—see **Betaine Hydrochloride**

*Oxyphenylbenzylketone*.—see **Benzoin**

*Oxysantonin*.—see **Artemisin**

**Oxysparteine Merck** (325)

Fr. sparteine, by slight oxid'n.— $C_{15}H_{24}N_2O$ .—Wh. to yellowish cryst.—*Sol.* W., A., E., C.—*Melt.* 84° C.—Cardiac Stimulant.—*Uses*: Heart-failure. Tolerance is soon established for incr. doses.—*Dose*  $\frac{3}{4}$ -1 $\frac{1}{2}$  grains (0.05-0.1 Gm.), hypoderm.

**Oxysparteine Hydrochloride Merck** (225)

$C_{15}H_{24}N_2O.HCl + 4H_2O$ .—Wh. cryst.—*Sol.* W., A.—*Melt.* 48-50° C.—Cardiac Tonic.—*Uses*: Hypoderm. in heart dis.—*Dose*  $\frac{3}{4}$ -1 $\frac{1}{2}$  grains (0.05-0.1 Gm.).—*Caut.* Narcotic!

**Oxysparteine Sulphate Merck** (225)

$(C_{15}H_{24}N_2O)_2.H_2SO_4$ .—Wh. cryst.—*Sol.* W., A.

*Oxytoluoltropine*. } —see **Homatropine**  
*Oxytoluylatropeine*. }

**Oyster Shell, Prepared**

(Concha Preparata; Testa Preparata).—The boiled, cleaned, & powdered shell of the oyster, *Ostrea edulis*. Mollusca, Lamellibranchiata. Ostreidae.—*Habit.*: Coasts of Atlantic & Indian Oceans.—*Etymol.*: Fr. Grk. "ostreon," oyster, & Lat. "edulis," edible.—*Constit.*: Chiefly calcium carbonate; also combined phosphoric acid, 0.09%; iodine, 0.003%; bromine, 0.005%; animal matter, 0.5-4.5%; and small quantities  $H_2SO_4$ ,  $MgO$ ,  $Al_2O_3$ ,  $Fe_2O_3$ , &  $SiO_2$ .—*Uses*: *Medic.*, antacid.—*Techn.*, in toothpowd.; for polishing, &c.—*Dose* 5-30 grains (0.3-2 Gm.).

*Ozamin 4 B*.—see **Benzopurpurine**

*Ozokerite*.—see **Ceresin**

*Ozonized Ether*.—see **Hydrogen Peroxide, Ethereal Solution**

**P**

**Pacara**

Bark & fruit of *Enterolobium Timboivum*, Mart. Acaciaeae.—*Habit.*: Brazil; Uruguay.—*Etymol.*: Most probably related to "pachira," the name by which wild cacao is known in Guiana.—*Constit.*: Saponin.—Fruit used as fish-poison.

**Pacini's Solution**.—Nos. 1 & 2

No. 1: 2 Gm. mercuric chloride, 4 Gm. sod. chloride, 26 Gm. G., & 226 Gm. W.—No. 2: 1

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

Gm.  $HgCl_2$ , 2 Gc. acetic acid, 115 Gc. W., & 43 Gm. G.—*Uses*: Preserv. nerves, retina, &c.

## Pæonia

(Piney; Peony).—Flowers, root, & seed of *Pæonia officinalis*, L. Ranunculaceæ.—*Habit*: Southern Europe; cult. in gardens.—*Etymol.*: Named for the Macedonian province "Pæonia," where the plant grew wild. Or, named for "Pæon," the physician of the Greek gods.—*Constit.*: *Flowers*: tannin, coloring matter; *root*: volat. oil, tannin, fat; *seed*: fixed oil, resin, tannin.—*Uses*: *Flowers*: Antispasmodic; Tonic; used in chorea, epilepsy, & nervous affections; abortifacient.—Also as ingredient in fumigating powders.—*Root*: Antiepileptic; Antispasmodic.—*Seeds*: Worn as bracelets & necklaces by children, as they are popularly believed to facilitate dentition.

*Pæonine*.—see **Coralline**

## Palatin Black B (also 4 B; 5 B N; 6 B E) Merck (3

These belong to the so-called "acid dyes," & are members of the class known as "azo" dyes.—*Sol.*, eas. in hot W.—*Uses*: Dyeing wool & silk with addition of sod. sulphate, preparations of tartar, & acids (best  $H_2SO_4$ ).

*Pale Rose*.—see **Rosa Centifolia**

*Palicourea*.—see **Coto**

## Palladium Merck.—Sheet, Wire, or Powder (2500

*Etymol.*: Discovered in 1804 by Wollaston, & named by him after "Pallas," the planet discovered in 1802 by Albers.—*Metal*.—Pd.—Mall., ductile, hard, silver-wh.—Sp. Gr. 11.4–11.8 at 15° C.—*Sol.*, nitric acid.—*Uses*: Techn. in form of gold & silver alloys in dentistry, & as gold-, silver-, or copper-alloy for journal bearings for springs & in balance wheels in watches; also for palladium-coating silvered vessels, & making lancets & palladium mirrors for astronomical instruments.

**do. Merck.—Precipitated (2000**  
(Palladium Black or Mohr).—*Uses*: Anal. & techn.

**do. Merck.—Sponge (2500**  
(Spongy Palladium).—By igniting palladium & ammonium chloride.—Pd.—Spongy masses; white, metallic luster, on rubbing.—*Sol.*, in nitric acid w. access of air.—*Uses*: Anal. & techn.; in gas analysis for separating hydrogen fr. mixtures of gases; also in combustion of hydrogen or hydrocarbons w. oxygen

## Palladium Merck.—Reagent (3000

Pd.—Foil or wire, greatly resembl. platinum; & as palladium sponge, a gray, spongy mass.—Compact metal sol. in nitrohydrochl. acid; pallad. sponge also sol. in HCl in presence of air.—*Tests*: (*Different. bet. Pd & Pt Foil*) place 1 drop. alcoh. solut. I on pallad. foil & allow to evap. spontan. — black spot remains, but disapp. on heat. foil to redness. With Pt foil no black

spot.—(Cu; Fe) diss. in nitrohydrochl. acid, evap. excess acid on W.-bath; diss. res. in  $H_2O$ ; add  $NH_4OH$  till ppt. of  $PdCl_2 \cdot 2NH_4Cl$  rediss.; pass in  $H_2S$  gas till all Pd pptd., filter; add  $NH_4OH$  excess to filtrate—no color or ppt.—*Uses*: Analysis of illum. gas, iodine, &c.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## Palladium Asbestos Merck.—10% (400 do. Merck. 50% (1600

Palladium precip. upon asbestos.—*Uses*: Anal. & techn. for absorbing hydrogen in gas anal.

*Palladium Black*.—see **Palladium, Precipitated**

## Palladium Chloride Merck.—Dry (1800

(Palladium Dichloride; Palladious Chloride).— $PdCl_2$ .—Dark-brown, deliq., pulverulent concretions.—*Sol.* W. acidul. w. HCl; sod.-chloride solut.—*Uses*: *Medic.*, in phthisis & bronchitis.—*Techn.*, in photography for preparing & transferring pictures to porcelain, & in toning solutions; also galvano-coating parts of clocks & watches, & in manuf. indelible ink.—*Dose* 5–10 m (0.3–0.6 Gc.) of a 3% aqu. solut. bef. meals.

## Palladium Chloride Merck.—Reagent (2200

(Palladious Chloride).— $PdCl_2$ .—Dark-brown mass.—*Sol.*, eas. W.—*Uses*: Analysis illum. gas; detect. moisture.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

*Palladium Dichloride*.—see **Palladium Chloride**

## Palladium Iodide Merck (2000

(Palladious Iodide).— $PdI_2$ .—Black powd.—*Sol.*, solut. potass. iodide; insol. W.

*Palladium Mohr*.—see **Palladium, Precipitated**

## Palladium Nitrate Merck (1200

(Palladious Nitrate).— $Pd(NO_3)_2$ .—Brown, deliq. salt.—*Sol.* W., with turbid.; w. much W., brown, basic salt precipitates.

## Palladium Nitrate Merck.—Reagent (1800

(Palladious Nitrate).— $Pd(NO_3)_2$ .—Brown, deliquescent salt.—*Sol.* W. w. turb. (due to alm. constant presence of some basic salt).—*Uses*: Quantitatively separ. Cl & I; also detecting ptomaines.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## Palladium Paper

Wh. paper, charged w. palladious chloride.—*Uses*: Test for carbon monoxide, hydrogen sulphide, illuminating gas, ozone, methane, ethane, &c.; a black color develops due to formation of metallic palladium.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Palladium & Potassium Chloride Merck** (1000  
(Potassium Palladious Chloride).— $K_2PdCl_4$ .—  
Prisms, red or green, as seen across or along axis  
of cryst.—*Sol.* W.; sl. in A.

**Palladium & Sodium Chloride Merck** (950  
(Sodium Palladious Chloride).— $Na_2PdCl_4$ .—  
Red, deliq. salt.—*Sol.* W., A.

**Palladium & Sodium Chloride Merck.—Reagent** (1200

(Sodium Palladious Chloride).— $PdCl_2 + 2NaCl$ .  
—Red, deliquescent salt.—*Sol.* W., A.—*Uses:* Analysis as reagent for various gases (illuminating gas & carbonic oxide), & particularly for iodine.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Palm Butter.**—see **Oil Palm, Solid**

**Palmitin.**—see **Tripalmitin**

**Pambotano**

(Pambotano; Calaya).—Bark of Calliandra Houstoni. Mimosa. Leguminosae.—*Habit.*: Mexico.—*Etymol.*: Fr. Grk. "kallos," beautiful, & "aner," man, or anther, i.e., beautiful anthers. Named also for Wm. Houston, an English surgeon & naturalist (abt. 1695–1733). "Pambotano" is the native Mexican name.—*Constit.*: Saponin; alkaloid; resinous substance; tannin.—*Uses:* Febrif. instead of quinine.—*Doses:* 2–2½ oz. (60–75 Gm.) daily in 4 doses, & in form of decoct.—*Fld. extr.*, 4 fl. dr. (15 Cc.) 4 t. p. d.; must never be taken on a full stomach.

**Panax.**—see **Ginseng**

**Pancreatin Merck.**—Pure, powd. (7

Mixt. of enzymes fr. the pancreas of warm-blooded animals, usually fr. fresh pancreas of the hog, or ox, & consist. chiefly of myopsin, amylpsin, trypsin & steapsin.—Yellowish, amorph. powd.—*Sol.*, partly in W.; insol. A.—Amyolytic; Proteolytic; Emulsifiant.—*Uses:* Aid to duodenal digestion.—*Dose* 5–15 grains (0.3–1 Gm.).—Pancreatin is decomp. in stomach, hence should be given in keratinized pills.—*Incomp.*, alc., acids.

*Note.*—Special purification & complete conformity with the U. S. P. requirements make this preparation particularly desirable for use in making the Comp. Pancreatic Powd. of the N. F., intended for making Humanized Milk for infants. This pancreatin, moreover, keeps unusually well.

**do. Merck.**—Pure, scales (8

Perm. & perf. sol. prep.—Yellowish, transp. scales.—*Sol.* W.

**do. Merck.**—Saccharated (6

Pancreatin & milk sugar.—Wh. powd.—*Sol.* W., with turbid.

**Pancreatin with Sodium Bicarbonate Merck** (8

Mixt. pancreatin, sodium bicarb., & milk sugar.

**Pancreatin with Starch Merck** (6

Mixt. pancreatin w. starch.—5 parts=1 part pancreatin pure.

**Pancreatin-Pepsin Merck** (10

Pancreatin w. pepsin, diastase, milk sugar, & lactic & hydrochloric acids.—Yellow powd.—*Sol.* W., with turbid.—*Uses:* To digest in alkaline or acid medium.—*Dose* 15 grains (1 Gm.) several t. p. d. after meals.

**Pankreon** (35

Tannin-pancreatin comp. obt. by act. of tannin on pancreatic subst.; abt. 10% tannin.—Dry, grayish, odorl. powd.; sl. acidulous taste.—*Sol.*, alk. liq.; insol. W. & acid liq.—Strong Trypsolytic; Amyolytic; & Emulsifiant.—*Uses:* Diar., constip., hyperemesis, achylia, nerv. dyspep., gastritis, gastr. carcinoma, intest. strict., tabes, &c.—Rapidly develops its action in the alk. intest. fluids.—*Doses:* Adults, 5–8 grains (0.3–0.5 Gm.) 3 t. p. d.; children, 1½ grains (0.1 Gm.) several t. p. d.

**Pannum**

(Inkomankomo; Uncomocomo).—Rhizome of Aspidium athamanticum, Kunze. Polypodiaceae.—*Habit.*: South Africa (the Cape, & Natal).—*Etymol.*: Fr. "panna," the name under which the drug was introduced abt. the middle of the last century, as a remedy for tapeworm. "Inkomankomo" or "uncomocomo" is the Kaffir name of the drug.—*Constit.*: Pannic acid; resin; tannin; volat. & fixed oils.—*Uses:* Teniafuge.

**Pansy.**—see **Viola Tricolor**

**Pao-Pereira**

(Pereiro).—Bark of Geissospermum Vellozii, Allen. Apocynaceae.—*Habit.*: Brazil.—*Etymol.*: "Pereiro" is the Brazilian name for the drug.—*Constit.*: Geissospermin,  $C_{19}H_{24}N_2O_2 \cdot H_2O$ ; perierine,  $C_{19}H_{24}N_2O$ ; vellosine,  $C_{23}H_{28}N_2O_4$ ; resin; wax.—*Uses:* Antiperiodic.—*Dose* 30 grains (2 Gm.) in powd. or 3:100 decoct.

**Papain Merck** (12

(Papayotin; Vegetable Pepsin).—Conc. active prin. of juice of fruit & lvs. of Carica Papaya, L. (Papaw). An enzyme similar to pepsin, but acting best in weak alk. solut.—Whitish, sl. hygro. powd.; digestive power on blood fibrin is 1 to 200.—*Sol.* W., G.; insol. A., C., E.—Digestive.—*Uses:* For dissolving false membr. in diphtheria, & aiding digestion.—*Dose* 2–5 grains (0.12–0.3 Gm.) w. sod. bicarb.—*Appl.* 5% solut. of equal parts G. & W. for diphth. & croup; 16% in fissured tongue.

**Papaver**

(Poppy Heads; Poppy Capsules).—Capsules & seed of Papaver somniferum, L. Papaveraceae.—*Habit.*: Europe; Asia.—*Etymol.*: "Papaver," fr. Lat. "papa," pap or thick milk, i.e., it was used to add to the food of children in order to cause sleep; the last syllable perhaps fr. "ve-

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacal; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Serine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



rara," true, i. e., true sleep-producer. "Somniferum," fr. Lat. "sominus," sleep, & "ferre," to bring, i. e., sleep-producing. *Constit.*: *Capsules*—Opium bases combined with meconic acid. Very small quantities are present, however, at all events not over 0.12% alkaloids or 0.03% morphine (in the seedless capsules).—*Seed*: Fixed oil; albuminoids.—*Uses*: *Capsules*: Nar.; Hypn.; Sed., instead of opium.—*Extern.*, in decoct. as demulcent in sprains, bruises, &c.—*Seeds*: Pharmaceutically for preparing emulsions (5-15.100). Only the white seeds should be used for this purpose; the bluish-black seeds are used in baking.—*Dose*: Aleoh. extr., 1-4 grains (0.06-0.25 Gm.); Mor. D. 8 grains (0.5 Gm.) single, 30 grains (2 Gm.) daily.—*Fld. extr.*, 10-30 Ml (0.6-2 Cc.).

*Papaver Rhoeas*.—see *Rheoados*

**Papaverine Merck.**—Pure, cryst. (40

Alkaloid fr. opium.—Discovered in 1848 by G. Merck.— $C_{20}H_{21}NO_4$ , or,  $(OCH_2)_2C_6H_3CH_2NC_6H_2C_4H_2(OCH_2)_2$ .—Wh. prisms.—*Sol.* A., E., C., & hot B.; sl. cold B.—*Melt.* 147° C.—*Nar.*; *Sed.*—*Uses*: Diar. of children.—*Dose* (for children)  $1/12$ - $1/3$  grain (0.005-0.02 Gm.) several t. p. d.

**Papaverine Hydrochloride Merck** (50

$C_{20}H_{21}NO_4 \cdot HCl$ .—Colorl. cryst., or white, cryst. powd.—*Sol.* W.—*Dose* (children)  $1/12$ - $3/4$  grain (0.005-0.05 Gm.) 3-4 t. p. d.

**Papaw**

(Carica; Pawpaw; Papaya; Melon Tree; Mamairo).—Lvs. of Carica Papaya, L. Passiflorac. Papayaceae.—*Habit.*: Tropical America & Asia.—*Etymol.*: "Carica," Lat. name for fig, fr. "Caria," in Asia Minor (its habitat); "papaya," fr. "papaia-maram," the Malabar name for the plant.—*Constit.*: Papain (vegetable ferment); carpaine ( $C_{14}H_{25}NO_5$ ); carposide (a glucoside).—*Uses*: Digestant (like pepsin).—*Techn.*, manuf. carpaine & papaine.

**Papaw Juice Merck.**—Dry (7

Fr. fruit Carica Papaya, L.—Proteolytic (1:80).—*Uses*: As of pepsin in dyspep.; & as solv. false membr.—*Dose* 8-15 grains (0.5-1 Gm.) with sod. bicarbonate.

*Papaya*.—see *Papaw*

*Papayotin*.—see *Papain*

*Papers, Test*.—see under *Azolitmin*, *Brazilin*, *Congo Red*, *Dahlia*, *Griess*, *Hematoxylin*, &c.

*Para-acetanisidin*.—see *Methacetin*

*Para-acetphenetidin*.—see *Acetphenetidin*; *Phenacetin*

*Para-amidophenol*.—see *Amidophenol*, *Para-*

*Para-aminobenzoyldiethylaminoethanol Hydrochloride*.—see *Novocaine*

*Para-aminotoluene* (or, -ol).—see *Toluidine*, *Para-*

*Paracari Beans*.—see *Impigem*

*Parachloral*.—see *Chloral*, *Meta-*

**Parachloralose Merck** (135

(Betachloralose). By-product of chloralose— $C_6H_{11}Cl_3O_6$ .—Wh. cryst.—*Sol.* A.; sl. W.—*Melt.* 227-229° C.—*Uses*: First considered hypnotic, but U. Mosso says it is emetic.

*Parachloronitrobenzene* (or, -ol).—see *Chloronitrobenzene*, *Para-*

*Para-Coto Bark*.—see *Coto*, *Para-*

**Paracotoin Merck.**—Highest Purity, free fr. Leucotin (700

Fr. Para-coto bark (source unknown).— $C_{12}H_8O_4$ .—Yellow, cryst. subslte.—*Sol.* E., A., C., B.; sl. W.—*Melt.* 149-151° C.—*Uses*, &c. As of true cotoin; only half as strong as latter.

do. **Merck.**—Commercial (50

Fr. Para-coto bark; mixt. of paracotoin, methylhydrocotoin, & methylprotocotoin.—Yellow cryst.—*Sol.* E., C., A.

*Paracresalol*.—see *Cresalol*, *Para-*

*Para Cress*.—see *Spilanthes*

*Paracuminaldehyde*.—see *Cuminol*

*Paracymene*.—see *Cymene*

*Paradiaminobenzene* (or, -ol).—see *Phenylene-diamine*, *Para-*

*Paradiaminodiphenyl*.—see *Benzidine*

*Paradi bromobenzene* (or, -ol).—see *Benzene*, *Di-bromo-*

*Paradi chlorbenzene* (or, -ol).—see *Benzene*, *Di-chloro-*, *Para-*

*Paradiethoxyethenyldiphenylamine Hydrochloride*.—see *Holocaïne Hydrochloride*

*Paradi methylbenzene* (or, -ol).—see *Xylene*, *Para-*

*Paradi oxybenzene* (or, -ol).—see *Hydroquinone*

*Paradise Seed*.—see *Amomum Melegueta*

*Paraethoxyformanilide*.—see *Formyl-phenetidin*

*Paraethoxyphenylsuccinimide*.—see *Pyranin*

*Paraethoxyphenylurea*.—see *Sucrol*

**Paraffin Merck.**—Hard (1

(Paraffin Wax; Ceresin).—Mixt. of members of paraffin series of hydrocarbons, chiefly  $C_{22}H_{44}$ ,  $C_{24}H_{50}$ , &  $C_{27}H_{56}$ , obtained by treating ozokerite with sulphuric acid, & then bleaching the resulting product w. the residues fr. the manuf. of ferri- & ferro-cyanides.—Wh., odorl. mass.—*Sol.* E., C., benzin, carbon disulphide, oils, turpentine.—*Sp. Gr.* 0.877.—*Solidif.* 74-76° C.—*Misc.*, w. aid of heat w. wax, spermaceti, oils, &c.—*Uses*: Pharm. as oint. base not prone to rancidity; also prepar. bandages by impregnating the rolls w. melted paraffin; also manuf.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



paraffin-paper (so-called wax-paper), in manuf. candles, as size, fixing drawings, &c., on muslin, prepar. so-called starch polish; water-proofing wood, cork, paper, & tissues; manuf. varnishes; in brewing & distilling for impregnating wooden vessels, in lubricants, preserving meat & eggs, & particularly as a succedaneum for wax.

**Paraffin Merck** (1)  
*Solidif.* 52–53° C.

do. **Merck** (1)  
*Solidif.* 46–48° C.

do. **Merck**.—Soft (1)  
*Solidif.* 40–42° C.—*N. B.*: The name is somet. applied to Petrolatum, which see.

**Paraffin, Liquid or Oil**.—see **Oil Paraffin**

**Paraform.** } —see **Trioxymethylene**  
**Paraformaldehyde.** }

**Paraform-collodion**.—see **Collodion, Paraform-**

**Paraglobulin**.—see **Globulin, Para-**

**Paraguay Tea**.—see **Maté**

**Paraiodaniline**.—see **Iodaniline, Para-**

**Paraiodanisol**.—see **Isoform**

**Paraiodophenol**.—**Cryst.**

(Phenol Iodide, Para-).— $C_6H_4OHI$ .—Colorl. or reddish cryst.; charact. odor.—*Melt.*, abt. 92° C.—*Uses*: *Extern.*, pure or w. glycerin as appl. in diphth., & in lupus, cancer; & intrauterine treatment of leucor.; indurations, uterine subinvolution, & ringworm of scalp.—*Caut.* The designation “Phenol Iodide,” or more properly “Iodized Phenol,” is also applied to a solut. of 1 part iodine in 4 parts phenol, used in whoop-cough, & given in doses of 1 teaspoonf. every 3 hrs., of a 1:60 solut.

**Paraldehyde Merck**.—Highest purity, medicinal (2)

(Polymer of Acetic Aldehyde).—Fr. aldehyde, by hydrochl., or sulphuric acid w. sulphur dioxide or zinc chloride.— $C_6H_{12}O_3$ , or,  $(CH_3-CHO)_3$ .—Colorl. liq.; cryst. below 10.5° C.; peculiar, arom., suffoc. odor & warm taste.—*Sp. Gr.* 0.995–0.998 at 15° C.—*Sol.* A., E., oils, C.; 10 W.—*Boil.* 121–125° C.—*Hypn.*; Antispasmodic; Stim.—*Uses*: Insom. & as antid. for morphine, & to obviate dangers of chloroform narcosis. Where small bulk is required, give in equal vol. expressed oil almonds.—*Dose* 30–90 Ml (2–6 Cc.) well dil., w. elixir, sweet water, brandy, or rum.—*Max. D.* 150 Ml (10 Cc.).

*Note*.—Physicians are impelled to prescribe this paraldehyde because of its uniformly excellent quality and constant conformity to the strictest standards of purity.

**Parallylanisol**.—see **Anethol, Solid**

**Parameria vulneraria**.—see **Tagulaway**

**Paramethoxybenzaldehyde**.—see **Aldehyde, Anisic**

**Paramethoxypropenylbenzene** (or, -ol).—see **Anethol, Solid**

**Paramethylphenol**.—see **Cresol, Para-**

**Paramethylpropylbenzene** (or, -ol).—see **Cymene**

**Paramide Merck** (450)  
(Triimide; Mellitimide; Mellimide).— $C_{12}H_3N_3O_6$ , or,  $C_6[(CO)_2NH]_3$ .—Wh. mass.—*Sol.*  $H_2SO_4$ .

**Paramidoazobenzene** (or, -ol).—see **Amidoazobenzene**

**Paramidoazobenzoic-acid Ethyl Ester**.—see **Anaesthesin**

**Paramidodimethylaniline**.—see **Dimethylparaphenylenediamine**

**Paramidodiphenylimide**.—see **Amidoazobenzene**

**Paramidomethoxybenzoic-acid Methyl Ester**.—see **Orthoform**

**Paramonobromotoluene**.—see **Toluene, Bromo-, Para-**

**Paramonochlorotoluene** (or, -ol).—see **Toluene, Chloro-**

**Paramorphine**.—see **Thebaine**

**Paranaphthalene**.—see **Anthracene**

**Paranephrin Merck**.—Sterilized solution, 1:1000

Subst. fr. suprarenal capsules obt. without aid of acids or alkalis; fully represents the unchanged, blood-pressure-raising principle of the capsules, while free fr. even traces of albumoses & peptones.—Yellow, friable, v. hygrosc. mass.—*Sol.* W., methyl A.; insol. absol. A., E., benzin.—Supplied as a 1:1000 aq. sterilized solut. containing 0.6% sod. chloride but no chloretone.—*Hemost.*—*Uses*: *Intern.*, for the suppression of intestinal hemorrh. occur. in the course of typhoid, also in gastric hemorrh. & scarlatinous forms of hemorrhagic nephritis.—*Doses*: 8–20 Ml (0.5–1.3 Cc.) at intervals of 4 hours; children, 2–4 Ml (0.12–0.25 Cc.).—Used externally alone or in combination with cocaine hydrochloride in general surgery, gynecol., urology, rhinol., laryngol., ophthalmol., dentistry, &c.—Marketed only in bts. ea. cont'g 150 Ml (10 Cc.) solut.

**Paranitraniline**.—see **Nitraniline, Para-**

**Paranitrobenzaldehyde**.—see **Nitrobenzaldehyde, Para-**

**Paranitrophenol**.—see **Nitrophenol, Para-**

**Paranitrosodimethylaniline**.—see **Nitrosodimethylaniline**

**Paranitrosophenol**.—see **Nitrosophenol, Para-**

**Paranitrotoluene** (or, -ol).—see **Nitrotoluene, Para-**

**Paraoxybenzoic aldehyde**.—see **Oxybenzaldehyde, Para-**

**Paraoxymetamethoxyallylbenzene**.—see **Eugenol**

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaicol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Paraorymethylnacetanilide*.—see **Methacetin**  
*Paraoryquinone*.—see **Phorone**  
*Paraorytoluene*.—see **Cresol, Para-**  
*Parapapone*.—see **Syntonin**  
*Paraphenetolcarbamide*.—see **Sucrol**  
*Paraphthalein*.—see **Phenolphthalein**  
*Parapropylmetacresol*.—see **Thymol**  
*Paratoluic Nitrile*.—see **Toluic Nitrile, Para-**  
*Paratolylacetamide*.—see **Acetparatoluide**  
*Paratolylldimethylpyrazole*.—see **Tolypyrine**  
*Paratolylldimethylpyrazole Salicylate*.—see **Tolysal**  
*Paraxylene (or, -ol)*.—see **Xylene, Para-**  
*Paraxyleneol*.—see **Xylenol, Para-**  
*Paraxyleneolsalol*.—see **Xylenol (Para-) Salicylate**

**Pareira.**—U. S. P.

(Pareira Brava; Abutua).—Dried root of *Chondrodendron tomentosum*, Ruiz et Pavon. Menispermaceæ. — *Habit.*: Brazil; Peru. — *Etymol.*: Portuguese "pareira brava," wild vine. Grk. "chondros," granule, & "dendron," tree, referring to the warty protuberances on the bark. Lat. "tomentosus," woolly, *i.e.*, the under side of the lvs. has gray hairs.—*Constit.*: Buxine (pelosine, bebecrine),  $C_{10}H_{21}NO_3$ ; tannin.—*Diur.*: Emmen.; Febrif.; Aper.—*Uses*: Gonor., gleet, pyelitis, chron. cystitis, dropsy, leucor., rheumat., &c.—*Doses*: 30–60 grains (2–4 Gm.).—*Fld. extr.*, 30–60 ml (2–4 Cc.).

**Parietaria**

(Wall Pellitory; Wallwort).—Herb of *Parietaria officinalis*, L. Urticaceæ.—*Habit.*: Europe.—*Etymol.*: Lat. "paries," wall, referring to its habit of growing on old walls.—*Constit.*: Bitter prin.; tannin.—*Diur.*; *Astring.*; *Lithontriptic.*

*Parillin*.—see **Smilacin**

*Paris Blue*.—see **Iron Ferrocyamide**

*Paris Green*.—see **Copper Acetoarsenite; Methyl Green**

*Paris Violet*.—see **Gentian Violet BBB**

*Paris Yellow*.—see **Lead Chromate, Precipitated**

**Parisol**

Condens. prod. of formaldehyde & saponified naphthaquinones. — Clear liq.; pleas. odor. — *Misc.*, eas. w. W. — *Bactericide*; *Antisep.*; *Disinf.* — *Uses*: Puerulent wounds, vaginal & uterine catarrh, &c.—*Appl.* 0.3–5% solut.

**Parme Violet Merck** (10

(Dimethylphenylammoniumchloride-dioxyphenoxazincarbonic-acid Methyl Ester).—Brown, lustr., cryst. powd., or paste.—*Sol.*, eas. in W. & A., w. bluish-violet color.

*Parodyne*.—see **Antipyrine**

**Parotid Gland Merck.**—Dried, powder (80  
 Fr. parotid gland of sheep. — 1 part=10 parts fresh gland.—*Uses*: Ovarian diseases, dysmen. & pelvic exudates.—*Dose* 2 grains (0.12 Gm.) 3–6 t. p. d.

*Parsley*.—see **Petroselinum**

*Parsley Camphor*.—see **Apiol, Cryst., White**

*Parsley, Marsh.*—see **Selinum**

**Parthenium**

(Feverfew; Featherfew; Herba Matricaria).—Herb of *Pyrethrum* (*Chrysanthemum*) *Parthenium*, Smith. Compositæ. — *Habit.*: Europe; cult. in U. S.—*Etymol.*: Grk. "parthenios," maidenly, pure. "Pyrethrum," fr. Grk. "pyr," fire, & "anthros," strong, *i.e.*, parts of the plant have a burning taste.—*Constit.*: Volat. oil; bitter principle.—*Tonic*; *Carmin.*; *Emmen.*; *Vermif.*; *Stim.*—*Uses*: *Extern.*, in severe colicky pains, &c.—*Dose*: *Fld. extr.*, 30–60 ml (2–4 Cc.).

*Partridge Berry*.—see **Mitchella**

**Parvoline Merck.**—Fr. Cinchonine (275

(Beta-parvoline).—Homologue of pyridine.—Fr. cinchonine by distil. w. KOH.— $C_9H_{13}N$ .—*Boil.* 220° C.

*Pasque Flower*.—see **Pulsatilla**

**Passiflora**

(Passion Flower; May Pops).—Flowers & root of *Passiflora incarnata*, L. Passifloraceæ.—*Habit.*: Southeastern U. S.—*Etymol.*: Lat. "flos passionis," a translation of "fior della passion," the flower of the passion, the Italian name early applied to the flower fr. a fancied resemblance of its parts to the implements of the crucifixion. "Incarnata," Lat. for flesh-colored, referring to the color of the flower.—*Constit.*: Alkaloid (in very small quantity).—*Nar.*; *Anod.*—*Uses*: Root is employed by Eclectics in neural., sleeplessness, dysmenor., & diar.; also used in epilepsy, tetanus, erysipelas, syphilis, &c.—*Dose*: *Root*: *Fld. extr.*, 10–30 ml (0.6–2 Cc.).

*Passion Flower*.—see **Passiflora**

**Patchouli**

Lvs. of *Pogostemon Patchouli*, Pelletier, Labiata.—*Habit.*: East Indies; West Indies.—*Etymol.*: "Pogostemon" fr. Grk. "pogon," beard, & "stemon," thread, or stamen. "Patchouli" is the East Indian name (Bengal) of the leaves.—*Constit.*: Volat. oil.—*Uses*: In perfumery.

**Paucine Hydrochloride Merck** (1000

Fr. paucine, an alkaloid fr. seeds of *Pentaclethra macrophylla* (Owalá Grains), found in the Congo States.— $C_{27}H_{39}N_5 \cdot 2HCl + 6H_2O$ .—Wh. needles.—*Sol.*, sl. w. *Melt.* 245–247° C.—*Physiologically inactive.*

*Paullinia Pinnata*.—see **Timbó**

*Paullinia Sorbilis*.—see **Guarana**

*Paullinia Thalictrifolia*.—see **Quamacai**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Pavy's Solution.**—For glucose

(1) 120 Cc. Fehling's solut., 300 Cc. ammonia (Sp. Gr. 0.880), 100 Cc. 10% solut. NaOH, & water, to make 1000 Cc.—(2) Make cold solut. 21.6 Gm. Rochelle salt & 18.4 Gm. NaOH (or 25.8 Gm. KOH) in abt. 300 Cc. dist. water; add to solut. 4.157 Gm.  $\text{CuSO}_4$  in abt. 200 Cc. dist. water, then add 300 Cc. ammonia (Sp. Gr. 0.880) & enough water to make 1000 Cc.—10 Cc. solut. (=1 Cc. Fehling's solut.) = 0.005 Gm. glucose.

**Pear Oil.**—see **Amyl Acetate****Pearlash.**—see **Potassium Carbonate, Crude****Pearl White.**—see **Bismuth Oxychloride**

**Pectin Sugar.** } —see **Arabinose**  
**Pectinose.** }

**Pelletierine Merck** (1750)

(Punicine).—Mixture of pelletierine,  $\text{C}_8\text{H}_{15}\text{NO}$ , & isopelletierine,  $\text{C}_8\text{H}_{15}\text{NO}$ , both alkaloids, fr. root-bark *Punica Granatum*, L. (Pomegranate).—Brown, oily liq.—Sp. Gr. 0.988 at 0° C.—*Sol.* A., C.—*Boil.*, abt. 195° C.—*Uses*: Possesses teniafeue properties, but usually used in form of sulphate or tannate.

**Pelletierine Benzoate Merck** (1500)

(Punicine Benzoate).—Brown, visc. masses.—*Sol.* A.

**Pelletierine Hydrobromide Merck** (1500)

(Punicine Hydrobromide).—Brown, visc. masses.—*Sol.* W., A.—*Uses*: Paralysis of ocular muscle having its origin in the 3d & 6th pair of nerves.—*Dose* 2 grains (0.12 Gm.) 4 t. p. d.

**Pelletierine Hydrochloride Merck** (1500)

(Punicine Hydrochloride).—Brown, syrupy mass.—*Sol.* W.

**Pelletierine Nitrate Merck** (1500)

(Punicine Nitrate).—Brown, syrupy mass.—*Sol.* W.

**Pelletierine Salicylate Merck** (1500)

(Punicine Salicylate).—Brown, extract-like mass.—*Sol.* A.

**Pelletierine Sulphate Merck.**—Medicinal (1018)

(Punicine Sulphate).—Free fr. pseudopunicine.—Brown, syrupy liq.; somet. cryst. mass.—*Sol.* W., A.—Anthelmintic.—*Dose* 6 grains (0.36 Gm.) w. 8 grains (0.5 Gm.) tannin in 1 fl. oz. (30 Cc.) of water. Give brisk cathartic half an hour later.—*Max. D.* 8 grains (0.5 Gm.) single & p. d.—*Antid.*, alcoh. liquids, mustard plasters, friction.

**Pelletierine Tannate Merck.**—Medicinal (228)

(Punicine Tannate).—Mixt. of punicine, isopunicine, methylpunicine, & pseudopunicine tannates.—Grayish-brown, hygros., tastel. powd.—*Sol.* 80 A., 700 W. at 15° C.; (235 W., 12.6 A., 300 E., at 25° C., U. S. P.); also in warm, dil. acids; insol. C.—Anthelmintic.—*Uses*: Principal

& most efficacious salt of pelletierine.—*Dose* 3–8 grains (0.2–0.5 Gm.) in 1 oz. (30 Cc.) W., followed in half an hour by cathartic.

*Note.*—This article is specially prepared with a view to securing proper teniafeue action, & it is most satisfactory to use, because it is both efficient & tasteless.

**Pelletierine Valerate Merck** (1500)

Brown, extract-like mass.—*Sol.* A.

**Pellet's Solution.**—For glucose

Solut. 68.7 Gm. cryst. copper sulph., 200 Gm. sod. chloride, 100 Gm. anhydr. sod. carbonate, & 7 Gm. ammon. chloride, in W. to 1000 Cc.—1 Cc. solut. = 0.005 Gm. glucose.

**Pellitory.**—see **Pyrethrum****Pellote.**—see **Anhalonium****Pellotine Hydrochloride Merck** (2500)

Salt of alkaloid fr. *Anhalonium Williamsii*, (Pellote), a Mexican *Caetaceæ*.— $\text{C}_{11}\text{H}_{13}\text{NO}$ — $(\text{OCH}_2)_2\text{HCl}$ .—Colorl. cryst.—*Sol.* W.—*Hypn.*—*Uses*: Psychic disturbances.—*Dose*: Subcut.,  $\frac{1}{6}$ – $\frac{1}{3}$  grain (0.01–0.02 Gm.).—*Max. D., Intern.*,  $\frac{3}{4}$ – $1\frac{1}{3}$  (0.05–0.08 Gm.); in maniacal excitement, 1 grain (0.06 Gm.).

**Pelosine.**—see **Bebeerine****Penghawar Djambi** (8)

(Golden Moss).—Chaffy hairs fr. base of stipes of *Cibotium Barometz*, J. E. Smith. Filicinae. Cyatheaaceae.—*Habit.*: Sunda Isles.—*Etymol.*: “Penghawar Djambi” is the Malayan name of the drug.—Long, silky, yellow or brownish, very soft hairs.—*Uses*: Hemostat., & for styptic bandages.

**Pennyroyal.**—see **Hedeoma****Pentadecyltolylketone Merck** (650)

(Tolylpentadecylketone).— $\text{CH}_3(\text{C}_6\text{H}_4)_2\text{CO.C}_{13}\text{H}_{27}$ .—Yellowish cryst.—*Sol.*, v. sl. cold A.—*Melt.* 60° C.—*Boil.* 262° C. at 15 Mm.—The fused & solidified substance emits a bluish-green light on breaking or attrition.—*Uses*: In investigations with cathode rays.

**Pental Merck** (30)

(Trimethylethylene; Betaisoamylene).—Fr. amylene hydrate, by water w. sulphuric acid & heat.— $\text{C}_5\text{H}_{10}$ , or,  $(\text{CH}_2)_2\text{C}:\text{CH}.\text{CH}_2$ .—Colorl., inflam. liq.—Sp. Gr. 0.6783 at 0° C.—*Misc.* A., E., C.; insol. W.—*Boil.* 38° C.—Anesthetic.—*Uses*: Minor surg. cases, tooth-extraction, &c.—*Dose* 150–300 m (abt. 10–20 Cc.) by inhalation.—See also Amylene.

**Pentamethylenediamine** (2000)

(Cadaverine; Animal Coniine).—Ptoamine formed in albumen by putrefaction.— $\text{C}_5\text{H}_{14}\text{N}_2$ , or,  $\text{NH}_2.\text{CH}_2.\text{CH}_2.\text{CH}_2.\text{CH}_2.\text{CH}_2.\text{NH}_2$ .—Syrupy liq.; odor of piperidine & spermine; fumes & attracts carbon dioxide on expos.—*Sol.* W., A.; sl. in E.—*Boil.* 178–179° C.—*Remarks*: Prod. of

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



the comma bacilli, always found in cholera discharges, can be converted into *parvulus*.—*Caut.* Keep fr. air.

**Pentamethylenediamine Hydrochloride Merck.**  
—Cryst. (1800)

(Cadaverine Hydrochloride).— $C_5H_{14}N_2 \cdot 2HCl$ .—Color: to brownish need.—*Sol.* W.; A.—*Caut.* Poison!

**Pentane Merck** (10)

(Amyl Hydride).—Fr. coal-tar or petroleum— $C_5H_{12}$ , or,  $CH_3CH_2CH_2CH_2CH_3$ .—Color: l., inflamm. liq.; pleas., fruity odor.—*Sp. Gr.* 0.6337 at 15° C.—*Sol.* A., E.—*Boil.* 35–40° C.—*Uses:* Proposed as anesthetic.

**Pentaphylli.**—see **Potentilla**

**Pcony.**—see **Pæonia**

**Pepo.**—U. S. P.

(Pumpkin Seed).—Ripe seed of *Cucurbita Pepo*, L. *Cucurbitaceæ*.—*Habit.*: Southern Asia; Europe; America.—*Etymol.*: “*Cucurbita*,” fr. Lat. “*eucumis*, *eucuma*,” a hollowed-out vessel, fr. the Celtic “*kukh*,” hollow; & “*orbis*,” a ring, or round, referring to the spherical form of the fruit. “*Pepo*,” fr. Grk. “*pepon*,” pumpkin, meaning ripe, mellow, i.e., not eaten till ripe.—*Constit.*: Fixed oil; acrid resin; proteids (myosin & vitellin); sugar.—*Uses*: *Tenifuge*; *Vermifuge*.—*Dose* 1–2 oz. (30–60 Gm.).—*Fld. extr.*, 4 fl. dr. (15 Ce.).

**Pepper.**—see **Piper**

**Peppermint.**—U. S. P.

(Brandy Mint; Lamb Mint).—Dried lvs. & flowering tops of *Mentha piperita*, L. *Labiata*.—*Habit.*: Asia; Europe; North America; cultiv. in gardens.—*Etymol.*: “*Mentha*,” fr. Grk. “*Mintha*,” daughter of *Coeytus*; she was supposed to have been changed into this plant by *Proserpine* in a fit of jealousy. “*Piperita*” has reference to the “peppery” or pungent qualities of the plant.—*Constit.*: Volat. oil; tannin; resin; gum.—*Arom.*: Carmin.; Nervine; Antispasm.—*Uses*: Colic, flatulence, cholera, & diar.—*Dose* 15–60 grains (1–4 Gm.) in powd.

**Peppermint Camphor.**—see **Menthol**

**Pepsin Merck.**—U. S. P.—Gran., scales, or powd. (6)

Proteolytic ferment or enzyme fr. glandular layer of fresh stomach of hog; diss. 3,000 times its wt. of albumen (freshly coagulated & disintegrated egg-wh.).—Wh., or yellowish-wh., transp. or transluc. scales, grains, or amorph., hygrosc. powd.; mild acid or saline taste.—*Sol.* 50 W., with opalescence; dil. hydrochl. acid; insol. A., E., C.—Proteolytic.—*Uses*: Intern., dyspep.; peptonizing milk for invalids; digesting false membr. (in diphth).—*Extern.*, digest. gangr. tissue fr. unhealthy wounds; for this purpose the stronger grades are used. Large doses may be taken w. impunity.—*Dose* 1–15

grains (0.06–1 Gm.), or more, 3 t. p. d. in solut. or powd.—*Incomp.*, alcohol, tannin, alkali carbonate, or chlorides.

*Note.*—This article always conforms in every respect with the U. S. P. requirements, & is hence fully to be depended upon where an active & reliable preparation is necessary.

**Pepsin Merck.**—*Ph. G. III.*—Scales (6)  
*Sol.* W.

do. Merck.—*Ph. G. IV.*—Powder, soluble 4  
1 part diss. 100 parts coagulated egg albumen.

do. Merck.—Saccharated, 1:300 (3)  
Pepsin reduced w. sugar of milk until it digests 300 times its own weight of albumen.—*Dose* 60–120 grains (4–8 Gm.).

**Pepsin Aromatic.**—N. F.

Sacch. pepsin 97 Gm., arom. fluid extr., 6 Ce., tart. acid, 1.5 Gm., & sod. chlor., 1.5 Gm.

**Peptone Merck.**—From Albumen.—Dried (15)  
Fr. white of egg by pepsin w. a sm. quant. of hydrochl. acid at 38–40° C.—Wh. to light yellow powd.—*Sol.* W.—Nutrient.—*Uses*: Food in some forms of dyspepsia.—*Incomp.*, alcohol, tannin, & many metallic salts.

do.—From Blood Fibrin

Prepared by digesting blood fibrin with pepsin.

do. Merck.—From Meat.—Dried (6)  
Pancreatic peptone fr. beef.—Light-brown powd.—*Sol.* W.—*Uses*, &c.: As in the following; also specially recommended for bacteriological work.

do. Merck.—From Meat.—Soft (4)  
Albuminoid obtained by pancreatic digestion of beef, & capable of direct assimilation by the animal organism.—*Uses*: Both the dry & soft peptones are given internally, as well as by enema, in malnutrition, e.g., in dyspep., gastric ulcer, &c.; also prepar. nutrient media for bacteriological work.

**Peptone-Pepsin Phosphate Merck** (10)  
Beef peptone with phosphoric acid.

**Perchlorethane.**—see **Carbon Trichloride**

**Perchlorethylene.**—see **Carbon Dichloride**

**Perchloromethane.**—see **Carbon Tetrachloride**

**Pereirine Merck.**—Pure (175)

Alkaloid found, together w. geissospermine, in bark of *Geissospermum Vellozii*, Alem. (Pao Pereiro Bark).— $C_{10}H_{21}N_2O$ .—Brownish, amorphous powd.—*Sol.* A., E., C.—*Melt.* 124° C.—Antiper.; Antipyr.—*Uses*: Remit. & intermit. fevers inst. of quinine.—*Dose* 8 grains (0.5 Gm.).

**Pereirine Hydrochloride Merck** (175)  
 $C_{10}H_{21}N_2O \cdot HCl$ .—Brown, amorph. powd.—*Sol.* W., A.—*Dose* 8–30 grains (0.5–2 Gm.).

**Pereiro.**—see **Pao-Pereira**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Perenyi's Chromo-nitric Acid**

0.15 Gm. chromic acid, 30 Cc. W., 30 Cc. alcohol, & 40 Cc. 10% nitric acid.—*Uses*: For fixing delicate vegetable & animal specimens.

*Perezon.* }  
*Perezol.* } —see **Acid Pipitzahoic**

**Perhydrol**

(16)

(Hydrogen Peroxide Merck).—Aht. 30% by wt. (or 100% by vol.)  $H_2O_2$ .—Perfectly pure solut.  $H_2O_2$ .—Sp. Gr. aht. 1.115 at 15° C.—Preferable to the 3%  $H_2O_2$  for medicinal purposes.—*Misc.*, all proport. w. W. or A.—Disinfect.; Antisep.; Deod.; Styptic; Antizym.—*Uses*: Chiefly extern., in diphth., sore throat, wounds, gonorr., abscesses, &c.—*Intern.*, in flatulence, gastric affect., phthisical sweats, &c.—*Hypoderm.* (0.2% solut.), in cyanide poisoning.—*Dose* of 3%  $H_2O_2$  (Perhydrol 1, water 9) 1-4 fl. drs. (4-15 Cc.), well dil.—*Extern.*, in 2-10% solut.; 3% solut. is as powerful antiseptically as a 1:1000 corros. sublim. solut.; also in eye lotions & eye drops (as 0.3% solut.), & in gynecol. (3% solut., & tampons moistened w. a 12% solut.); also in dentistry for bleaching teeth & as inject. (10% solut.) in alveolar pyorrhea. Counteracts poisonousness of diphth. & tetanus toxins, & also of abrin.—*Incomp.*, alkalis, albumen, ammonia, arsenous salts, balsam Peru, carbolic acid, charcoal, chlorides, chlorine water, citrates of alkalis, ferric salts, glycerin, gold salts, hydrocyanic acid, hypophosphites, iodides, lime-water, manganese dioxide, mercurous salts, nitrates, potassium bromide, permanganates, sulphates, solution chlorinated soda, tartrates, tinctures.—*Caut.* Keep cool.

**Perhydrol.—Reagent**

(16)

(Hydrogen Peroxide Merck).—30% by wt.  $H_2O_2$ .—Sp. Gr. 1.115-1.119.—Liq. acid to litmus paper (ducently to high  $H_2O_2$  cont.).—*Tests*: ( $H_2SO_4$ ) 1 Cc. + 20 Cc.  $H_2O$  + 1 Cc. HCl (sp. gr. 1.124); boil; add solut.  $BaCl_2$ —no ppt. within 12 hrs.—(*Res.* [ $H_2SO_4$ ;  $H_3PO_4$ , &c.]) heat 10 Cc. on W.-bath—none wghble.—( $H_2C_2O_4$ ) 2 Cc. + 10 Cc.  $H_2O$  + solut.  $CaCl_2$ —no react.—(*HCl*) 1 Cc. + 20 Cc.  $H_2O$  + 1 Cc.  $HNO_3$  (sp. gr. 1.153) + solut.  $AgNO_3$ —no turb.—(*HF*) concentrate 10 Cc. + few drops solut. NaOH on W.-bath; transf. to watch-glass, & dry on latter; pour on res. cone.  $H_2SO_4$ ; let stand 2-3 hrs. in warm place—glass not etched.—( $H_3PO_4$ ) concentrate 5 Cc. on W.-bath; diss. res. in 3 Cc.  $H_2O$ ; add 1 Cc. magnesia mixt. + 3 Cc.  $NH_4OH$  (sp. gr. 0.96)—no ppt. within 12 hrs.—*Uses*: Partic. desirable oxidizer in analysis, e.g., in oxidiz. sulphur in sulphides, sulphurois & hyposulphurous acids, of tin & the metals of the iron group, chromic acid, nitric acid, formaldehyde; analysis of  $MnO_2$ , conversion of iodates & bromates into iodides & bromides. Determ. HCl, HI, &  $HNO_3$ ; standardizing permanganate soluts.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by

D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

*Perhydrol Zinc.*—see **Zinc-Perhydrol**

*Periodothalline Sulphate.*—see **Thalline Periodide**

**Periploca**

(Milk Vine; Climbing Dogs-bane; Scammony Senna; Smyrna Scammony).—Herb of *Periploca græca*, L. Aselepiadaceæ. —*Habit.*: Europe (Greece; Caucasus).—*Etymol.*: Grk. "peri," around, & "plekein," to wind about, referring to the twining habit of the plant.—*Constit.*: Periplocin (glucoside).—*Uses*: Cardiac Tonic (properties like those of digitalis).—*Dose*: Fld. extr. (of bark & stems), 5-10 M (0.3-0.6 Cc.).

**Periplocin Merck**

(1250)

Glucoside fr. bark of *Periploca græca*, L. (Milk Vine).—Yellow, amorph. powd.—*Sol.* A., W.—Cardiac Tonic.—*Uses*: Cardiac diseases.—*Max. D.*, hypoderm.,  $\frac{1}{60}$  grain (0.001 Gm.) dissolved in physiolog. salt solut. The injections may be given daily, or at intervals of 2-3 days.

**Pernambuco**

(Fernambuco; Brazil Wood; Nicaragua Wood; Lima Wood; Red-Wood).—Wood *Cesalpinia echinata*, Lam. *Cesalpinia*æ.—*Habit.*: Tropical America (Brazil).—*Constit.*: Brazilin,  $C_{16}H_{14}O_5$ .—*Uses*: Techn., in dyeing red, & in manuf. of a red lake pigment.—As indicator (in form of decoct.) in volumetr. analysis (alkalis = purplish-red; acids = yellow.)

*Pernambuco Paper.*—see **Brazilin Paper**

**Peronin Merck**

(500)

(Benzylmorphine Hydrochloride).— $C_{17}H_{18}NO_2 \cdot O.C_6H_5.CH_2.HCl$ .—Wh. powd.—*Sol.* W.; dil. A.; insol. E., C.—Narcotic; somewh. weaker than morphine, but free fr. the disturbing by-effects of the latter.—*Uses*: Succedaneum for morphine, particularly where latter contraindicated, or where idiosyncrasy exists. Also to relieve the annoying cough in phthisis, & in bronchial catarrh, asthmatic affections, as well as rheumatic & neuralgic pains.—*Dose*  $\frac{1}{3}$ - $\frac{2}{3}$  grain (0.02-0.04 Gm.).—*Max. D.* 1 grain (0.06 Gm.) single; 3 grains (0.2 Gm.) p. d.

*Persomic Anhydride.*—see (Acid) **Osmic Anhydride**

*Persian Red.*—see **Lead Chromate, Basic**

*Persimmon.*—see **Diospyros**

**Persoz' Reagent.—For silk & wool**

Solut. 10 Gm. zinc chloride in 10 Cc. W., w. 2 Gm. zinc oxide added & shaken w. solut.—Silk dissolves on warming w. solut. to 45° C.; wool does not.

*Pestilence Weed.*—see **Petasites**

**Petasites**

(Pestilence Weed; Umbrella-leaf; Bog Rhubarb).—Herb & root of *Petasites vulgaris*, Desf. Con-

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



positæ. Synantheræ. — *Habit.*: Europe; northern Asia; adv. in U. S. — *Etymol.*: "Petasites," umbrellaplant, fr. Grk. "petasos," a hat with a big brim. — *Constit.*: Root contains volat. oil. — *Aper.*: Diaphor.; Emmen.; Antispasmod.

**Petroleum.—U. S. P.**

(Soft Petroleum Ointment [Vaseline; Saxoline; Cosmoline, &c., are proprietary brands]).—The more or less purified residue fr. the distill of petroleum. — *Mixt.* various hydrocarbons, chiefly of the methane series, w. high carbon content  $C_{25}H_{52}$ . — Light yellowish or yellow semi-solid; oint. consistence. — *Sp. Gr.* 0.820–0.850 at 60° C. — *Sol.* E., C., benzin,  $CS_2$ , B., oils; sl. A.; insol. W., G. — *Melt.* 45–48° C. — *Antisep.*; Emollient. — *Uses:* *Extern.*, chapped hands, excoriated surf.; oint. base, &c. — *Techn.*, in modeling clay, as leather grease, lubricating firearms & machinery, shoe polish, greasing hoofs, rust preventative, soap, putz pomade, &c.

**do.—Liquid.—U. S. P.**

The purified residue, a mixt. of hydrocarbons chiefly of the methane series, fr. the distillation of petroleum; liquid at ord. temp. — *Colorl.* to sl. yellowish, transp. liq.; odor of petroleum when warm. — *Sp. Gr.* 0.870–0.940 at 25° C. — *Sol.* E., C.; carbon disulphide, B., benzin, oils, boil. A.; insol. W.; scarcely sol. cold or hot A. — *Emollient.*; *Antisep.* — *Uses:* *Intern.*, chronic bronch. catarrh. — *Extern.*, as spray in dis. of throat, larynx, bronch. tubes, & nasal passages. Vehicle for antiseptic remed. — *Dose* 60–180  $\mathfrak{m}$  (4–12 Cc.).

**do.—Veterinary**

Unfiltered, or imperfectly filtered, petroleum residue. — Dark-yellow, semi-solid mass. — *Antisep.*; Emollient. — *Uses:* *Veter.*, as oint. base.

**do.—White.—U. S. P.**

Yellow petrolatum, deprived of color by bleaching (Wh. Vaseline, Albolene, &c., are proprietary brands). — *Mixt.* various hydrocarbons w. high carbon content. —  $C_{25}H_{52}$ . — Wh. semi-solid; oint. consistence. — *Sol.*, eas. benzin, C., E.,  $CS_2$ , oils; sl. A.; insol. W., G. — *Melt.* 40–45° C. — Very stable, hence used as oint. base & cosmetic; also in extracting perfumes, modeling clay, softening leather, greasing firearms, lubricating machinery, shoe polish, soaps, rust preventative, putz pomades, &c.

**Petroleum.—Crude**

(Crude Mineral Oil; Rock Oil; Seneca Oil). — Dark-yellow, brownish, or greenish-black, oily liq. — *Sol.* E., C. — *Antisep.* — *Uses:* *Extern.*, skin dis.

**Petroleum Saponated.—Liquid.—N. F.**

Fr. 100 liq. petrolatum, 50 oleic acid, & 25 spirit. ammonia.

**do.—Solid.—N. F.**

Fr. 100 petrolatum, 50 oleic acid, & 25 spirit. ammonia.

**Petroleum Ether.—see Benzin**

**Petroleum Ether, Light.—see Canadol**

**Petroleum Naphtha.—see Benzin**

**Petroselinum**

(Parsley, Common Parsley). — Herb, root, & seed of *Petroselinum sativum*. Hoffman. Umbellifera. — *Habit.*: Europe (Russia; France; Germany); cult. everywhere. — *Etymol.*: Grk. "petros," rock, & "selinon," parsley. "Sativum," fr. Lat. "sativus," cultivated. — *Constit.*: Herb, volat. oil; apiin,  $C_{21}H_{38}O_{13}$ ; apiolin. — Root, volat. oil. — Seed, volat. & fixed oils; apiol; apiolin; apiin; tannin. — *Uses:* Herb employed in cooking chiefly; also extern. as vulnerary. — Root is diuret. — Seeds are Diuret.; Febrif.; Emmen.; Insecticide. — All three are employed in dropsy, amenor., cystitis, & derangements of genito-urin. tract. — *Doses:* Root; 30–60 grains (2–4 Gm.). — *Fld. extr.*, 30–120  $\mathfrak{m}$  (2–8 Cc.). — *Seed:* *Fld. extr.*, 30–60  $\mathfrak{m}$  (2–4 Cc.).

**Peucedanin Merck**

(280)

(Imperatorin). — Bitter prin. fr. root *Peucedanum officinale*, L. —  $C_{16}H_{16}O_4$ , or  $CH_3O.C_6H_4.O.C_6H_4.O.CH_2.CO.CH_3(?)$ . — Wh. cryst. — *Sol.* E., petroleum ether, & solut. KOH; sl. cold A. — *Melt.* 95–99° C. — The conc. alcoh. solut. on being warmed w. conc. HCl affords a cryst. precip. of orosolon.

**Peucedanum**

(Hog Fennel; Sow Fennel; Sulphur-wort). — Root of *Peucedanum officinale*, L. Umbellifera. — *Habit.*: Europe. — *Etymol.*: Fr. Grk. "peuke-danos," sharp, incisive, referring to the odor of the root. — *Constit.*: Peucedanin,  $C_{16}H_{16}O_4$ ; oxy-peucedanin; resin; volat. oil. — Tonic; Diuret.; Emmen.

**Peucedanum Palustre.—see Selinum**

**Peumus.—see Boldo**

**Phalaris**

(Canary Seed). — Seed of *Phalaris canariensis*, L. Gramineæ. — *Habit.*: Europe; Canary Islands. — *Etymol.*: Grk. "phalaris," shining grass. — *Constit.*: Resin. — *Uses:* In vesicular affections; also as bird seed.

**Phaoretin Merck**

(210)

Resinous extr. fr. rhubarb-root. —  $C_{16}H_{16}O_7$ . — Yellowish-brown powd. — *Sol.* A., alkalies; sl. W.

**Phaseolus (Bean)**

(Haricot; Common Bean; French String or Pole Bean; Kidney Bean). — Bean & pod of *Phaseolus vulgaris*, L. Papilionaceæ. — *Habit.*: India; introduced early into Europe, & now widely cultivated. — *Etymol.*: Fr. Grk. "phagein," to eat, i.e., the bean is used as a food. Or, more probably, fr. Grk. "phaselos," a boat, referring to the shape of the seeds. — *Constit.*: Starch; legumin; gum; sugar. Pod also contains inosite. — *Uses:* Nutrient, & as cataplasm. Pod also used as diuret. in diabetes, nephritis, &c. —

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Dose; Pod:* Decoct. of 200-250 : 1000 Cc. W. boiled down to 500 Cc. & taken within 24 hours.

*Phascomannite.*—see **Inosite**

*Pheasant's Eye.*—see **Adonis Æstivalis**

### Phellandrium

(Water Fennel; Water Dropwort; Horsebane; Fine-leaved Water Hemlock).—Fruit of (Eunanthus) Phellandrium, Lamarek. Umbelliferae.—*Habit.*: Europe; Northern Asia.—*Etymol.*: Probably fr. Grk. "phellos," cork, & "andreios," vigorous, because the stems float on water like cork.—*Constit.*: Volat. & fixed oils; phellandrin (?).—*Diaph.* & *Expector.* (in bronch. catarrhs); *Narcot. Stim.*; *Alter.*; *Diur.*—*Doses*: 4-10 grains (0.25-0.6 Gm.).—*Alcoh. extr.*, 2-5 grains (0.12-0.3 Gm.).—*Fld. extr.*, 10-30 ℥ (0.6-2 Cc.).

### Phenacetin (7)

(Para-acetphenetidin · Acetphenetidin; Oxyethylacetanilide).— $C_{10}H_{13}NO_2$ , or  $C_6H_5(OC_2H_5)(NHCH_3CO)[1:4]$ .—Wh., tastel., cryst. powd.—*Sol.* 925 W., 12 A., 63 E., 20 C., at 25° C.; 70 boil. W.; 2 boil. A.—*Melt.* 134-135° C.—*Antipyr.*; *Analg.*; *Antirheum.*—*Uses: Intern.*, neural., rheum., pleurisy, whoop-cough, polyuria, diabetes, chorea, influenza, tonsil., scarlat.—*Extern.*, painful ulc.; hastens healing of wounds. Effect lasts 8-10 hrs.; maximum in four hrs. (Dujardin-Beaumetz).—*Doses: Antipyr.*, 8-10 grains (0.5-0.6 Gm.); *antirheum.*, 15-24 grains (1-1.5 Gm.); children: 2½-5 grains (0.15-0.3 Gm.).—*Caut.* Use carefully in phth.

### Phenacetolin Merck (30)

(Degener's Indicator).—React.-prod., sulphuric acid, phenol & glacial acetic acid w. heat.—Yellowish-brown powd.—*Sol.* A.; sl. in W.

### Phenacetolin Merck.—Reagent (50)

Brown dye obt. by act. conc.  $H_2SO_4$  on glaci.  $C_2H_5O_2$  &  $C_6H_5OH$ .—*Sol.* A.—Indicator Solut.: digest 1 Gm. w. A. by heat., then add A. to make 100 Cc.; filter.—*Test: (Sensitivity)* 100 Cc.  $H_2O$  + 2 drops indicator solut.; add 0.05 Cc. decinorm. KOH—light-brown color should change to pink; on further add. 0.05 Cc. decinorm. HCl color should change to golden yellow.—*Uses:* Indicator, useful w. carbonates (caustic alkalies = pale-yellow; alkali carbonates = red).

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

*Phenamin.*—see **Phenocoll**

### Phenanthrene Merck.—Highest Purity (20)

(Orthodiphenylene-ethylene).—*Constit.* coal-tar isom. w. anthracene.— $C_{14}H_{10}$ , or  $(C_{14}H_9)CH_2$ .—Sm., colorl. plates.—*Sol.* E., B., acetic acid, carbon disulphide; sl. in A.—*Melt.* 100° C.

do. Merck.—Purified (8)

### Phenanthrenequinone Merck (60)

Fr. phenanthrene by oxid'n.— $C_{14}H_8O_2$ , or  $(C_{14}H_9CO)_2$ .—Orange-red cryst.—*Sol.* E., B., acetic acid, hot A.—*Melt.* 202° C.—Affords a dark-green color with concentrated sulphuric acid.

*Phenazone.*—see **Antipyrine**

### Phenegol

(Mercury-potassium Nitroparaphenolsulphonate).— $C_6H_5(O_2NO_2SO_3K)$ : Hg:  $(KSO_3NO_2O)_2C_6H_5$ .—Reddish-brown, odorl., tastel. powd.—*Abt.* 33% Hg.—*Sol.* W.—*Antisep.*—*Uses:* Sterilizing surgic. instruments.

*Phenetidin Acetosalicylate.*—see **Phenosol**

*Phenetidin Amygdalate.*—see **Amygdophenin**

*Phenetidin Quinin-carbonic-acid Ester.*—see **Chinaphenin**

*Phenetidin Salicylacetate.*—see **Phenosol**

### Phenetol Merck.—Pure (15)

(Ethylic Ester of Phenol; Ethyl Phenate, or Carbolate).—By heat. sodium sulphovinate w. sodium phenylate.— $C_8H_9O$ , or  $C_6H_5O.C_2H_5$ .—Oily liq.—*Sp. Gr.* 0.9822 at 0° C.—*Sol.* A., E.—*Boil.* 172° C.

*Phenetolcarbamide, Para.*—see **Sucrol**

### Phenocoll

(Aminoacetophenetidin; Glycocollphenetidin; Phenamin).—Phenacetin deriv.— $C_{10}H_{14}O_2N_2 + H_2O$ , or  $C_6H_5(OC_2H_5).NHCOCH_2NH_2 + H_2O$ .—Wh., matted need.—*Sol.* A.; sl. in W.—*Melt.* 95° C.—*Antipyr.*; *Antirheum.*; *Analg.*; *Diaph.*—*Uses:* Phthisis, pneum., rheum., neural., influenza, malaria, &c. The sweating is checked by atropine.—*Dose* 10-15 grains (0.6-1 Gm.).—*Max. D.* 15 grains (1 Gm.) single; 75 grains (5 Gm.) p. day.

### Phenocoll Hydrochloride (35)

$C_{10}H_{14}O_2N_2.HCl$ .—Wh., cryst. need.—*Sol.* A., 16 W.—*Uses, Doses, &c.*: As of phenocoll. Salt most frequently used.

### Phenocoll Salicylate (25)

(Salocoll).—Fr. phenocoll by salicylic acid.— $C_{17}H_{20}N_2O_5$ , or  $C_6H_5(OC_2H_5).NHCOCH_2NH_2.C_6H_4O_2$ .—Fine, wh. need.; sweetish taste.—*Sol.* hot W.—*Antipyr.*; *Antisep.*; *Analg.*—*Uses:* Rheum., gout, chorea, pleurisy, & fevers.—*Dose* 10-15 grains (0.6-1 Gm.) several t. p. d.

### Phenol Merck.—Colorl. cryst., fused.—"Silver Label" (1)

(Carbolic, Phenic, or Phenyllic, Acid; Phenyl Hydrate; Hydroxybenzene [or -ol]).—Coal-tar constit., in fract. boil. bet. 170° & 230° C.— $C_6H_6O$ , or  $C_6H_5OH$ .—Colorl. cryst.; charact. odor; when h'ly dil., sweetish taste. Deliq. in moist air.—*Sol.* A., E., C., G.; *abt.* 20 W. at 25° C.; 2 olive oil.—*Melt.* 40° C.—*Boil.* 178-182° C.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

(U. S. P.).—Antisept.; Antipyret.; Caustic; Top. Anesth.—*Uses*: For disinfect. solut's or mixt's. For solut's to abort boils or carbuncles: dress wounds, keep flies fr horses & cattle. In ulcers, inflam., vener. veget., nevi, hemorrhoids, toothache, whoop-cough, diphth., &c. To prev. spread of zymotic dis.—*N. B.*: Dangerous to infants; poisoning occurs by absorption.)

—*Dose*:  $\frac{1}{2}$ –2 grains (0.015–0.12 Gm.), h'ly diluted with W., or in pills, several t. p. d., in abnorm. gastric and intest. fermentations.—*Max. D.*: 2 grains (0.12 Gm.) single; 8 grains (0.5 Gm.) daily.—*Inj.*, in urethra or bladder 1:500–1000.—*Appl.*, by spray, 1% aq. solut.; as wash, 0.2–0.5% solut.; as caust., in substance, or conc. solut.; as disinfect., 0.5–5% aq. solut.; in carbolized gauze; for utensils and rooms, 1% aq. solut.; mouth wash and gargle, 1% solut.; also employed as glycerite (20%), oint. (5%), or w. lanum and petrolatum (3%); carbolized glycerin (10%).—*Antid.*, any soluble non-toxic sulphate, after provoking vomiting with zinc sulphate; uncooked white of egg in abundance; milk-of-lime; calcium saccharate; olive & castor oils with magnesia in suspension; ice; washing the stomach w. equal parts water & vinegar; give alcohol or whiskey, or abt. 4 fl. oz. (120 Cc.) camphorated oil at one dose, & injections of stimulants to avoid collapse.—*Incomp.*, hydrated chloral, ferrous sulphate; triturated w. acetanilide, butyl-chloral hydrate, camphor, monobromated camphor, hydrated chloral, lead acetate, menthol, naphthalene, naphthol, pyrogallol, resorcinol, salol, sodium phosphate, thymol, urethane, chloralamide, or terpin hydrate, it yields a liquid or soft mass; coagulates collodion.—*Caut.*: Poisonous. External applications & injections have proved fatal, & therefore should be used with great caution. Keep in dark amber, well-stoppered bottles.

*Note*.—MERCK'S phenol is guaranteed not to *redden*, under the usual precautions of keeping.

**Phenol Merck.**—Highest Purity, Medicinal, loose cryst. (2)

Wh., cryst. mass.—*Melt.* 40° C.—*Boil.*, not above 188° C.—*Uses*, *Doses*, &c. As of phenol, colorl. cryst., fused.

*Note*.—MERCK'S phenol is guaranteed not to *redden*, under the usual precautions of keeping.

**do. Merck.**—Fused (1)

Wh., cryst. mass.—*Melt.* abt. 42° C.—*Uses*, *Doses*, &c.: as of phenol, colorl. cryst., fused.

**do. Merck.**—Synthetic.—Colorless, Highest Purity, cryst. (2)

Fr. aniline, by diazo-reaction.— $C_6H_6O$ , or  $C_6H_5OH$ .—*Melt.* 41–42° C.—Properties, etc., as of phenol, colorl. cryst., fused.

**do. Merck.**—U. S. P.—Liquid, Medicinal, 86.4% cryst. (1)

**do.**—Crude.—90% (1)

Fr. coal-tar.—Mixture chiefly of cresol & phenol.—Dark, oily liq.; str. tar odor.—*Sol.*, partly W.

—Disinf.—*Uses*: Gen'l disinfect., either in solut. (1 in 50 to 200), or mixed w. chlorinated lime, slaked lime, &c., for urinals, toilets, stables, etc. Not adapted for wounds.

**Phenol.**—Crude.—30% (1)

**Phenol Benzoate Merck** (20)

(Phenyl Benzoate).—Fr. phenol, w. benzoic acid & phosphorus oxychloride.— $C_6H_5O_2$ , or  $C_6H_5OC_6H_5$ .—Monocr., wh. prisms.—*Sol.*: A., E.—*Melt.* 68° C.—*Boil.* 314° C.

**Phenol-Bismuth.**—see **Bismuth Phenate**

**Phenol-Camphor.**—see **Camphor Phenolated**

**Phenol-Cocaine.**—see **Cocaine Phenate**

**Phenol Ethylate.**—see **Phenetol**

**Phenol Iodide, Para.**—see **Paraiodophenol**

**Phenol Iodized Merck.**—N. F.

(Iodized Carboic Acid).—Solut. of iodine in glycerin-carboic acid.—(*Nat. Form.* directs: Iodine 20, Phenol 60, Glycerin 20 parts.)—Antisept.; Counter-irrit.; Eschar.—*Uses*: Uterine dilatation.—*Appl.*, by inj., pure.

**Phenol-Lithium.**—see **Lithium Phenate**

**Phenol-Mercury.**—see **Mercury Phenate**

**Phenol, Orthomonobromo.**—see **Monobromophenol, Ortho-**

**Phenol Salicylate.**—see **Salol**

**Phenol Sulphoricinate Merck** (25)

(Phenolsulphoricinic Acid).—Mixt. phenol & sodium sulphuricinate.—Colorl. to yellowish liq.—*Misc. W.*—*Uses*: In form of sodium compound (see Phenol & Sodium Sulphoricinate).

**Phenol & Sodium Sulphoricinate Heryng-Merck.**

—25% & 30% (25)

Both preparations are soluts. of synthetic phenol (25% & 30% respectively) in sodium sulphuricinate Berlioz (which see).—Thick, syrupy, yellowish liq.—*Misc. W.*—Sp. Gr. of 25% prep., 1.049–1.050; of 30% prep., 1.051–1.052.—Caustic, Antisept., & Rubefac.—*Uses*: *Extern.*, pure in tuberculosis, chron. affect. of throat & nose, diphth., laryngeal papilloma (by painting), & warts. In ozena, friction of nasal mucosa with 25% prep. 1:2–3 water, once daily.—In France, the prep. is known as "Phénol Sulfuriciné."

**Phenolphthalein Merck.**—Pure (7)

(Dihydroxyphthalophenone; Dioxytriphenylphthalide; Paraphthalein).—Fr. phthalic anhydride, by conc. sulphuric acid.— $C_{20}H_{14}O_4$  or  $(C_6H_4-OH)_2CO.C_6H_4CO$ .—Yellowish-wh. or alm. wh. microcryst. powd.—*Sol.* 10 A.; sl. W.—*Melt.*, abt. 250° C.—The 1:100 alcohol. solut. is colorl.—*Uses*: *Medic.*, as laxative.—*Dose* 1–8 grains (0.06–0.5 Gm.); up to 30 grains (2 Gm.) may be given if necessary.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S on your orders**

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Phenolphthalein Merck.—Reagent** (15)

$C_{20}H_{14}O_4$ .—Wh., or yellowish-wh. powd.—*Sol.*, eas. A.—*Melt.* 250–253° C.—*Indicator Solut.*: 1 Gm. + 100 Cc. 85% A.—*Tests*: (*Res.*) ignite 0.5 Gm. on platin. foil—none whble.—(*Sol. in A.*) 1 Gm. + 10 Cc. 85% A.—clear solut.; the 1:100 solut. colorl.—(*Sensitiveness*) 3–5 drops solut. + 250 Cc. well-boiled & cooled  $H_2O$  should require not more than 0.05 Cc. decinorm. KOH to effect color-change fr. colorl. to violet (not red).—(*Fluorane*) 0.5 Gm. should compl. diss. in 1 Cc. solut. NaOH (sp. gr. 1.168–1.172) + 50 Cc.  $H_2O$ .—*Uses*: Indicator for caustic alkalies in presence of alkali carbonates; also determining alkali carbonates in presence of alkali bicarbonates, titrating organic acids, &c. (acids= colorless; alkalies= pink to rose-red); testing margarine.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Phenolphthalein Paper**

Wh. paper, charged w. phenolphthalein.—*Uses*: Indicator in alkalimetry (alkalies=red; acids= colorless).

**Phenolphthalin Merck** (100)

(Phtalin; = Dioxotriphenylmethanecarboxylic Acid).—Fr. phenolphthalein by reduct. w. Zn & NaOH.—( $C_6H_4.OH$ )<sub>2</sub>.CH.C<sub>6</sub>H<sub>4</sub>.COOH.—Cryst. powd.—*Melt.* 225° C.

**Phenolquinine.**—see **Quinine Phenate****Phenopyrine**

(Antipyrine Phenate or Carbolate).—Equal parts of carboic acid & antipyrine.—Colorl., oily liq.; odorl.—*Sol.* E., C.—*Antisept.*; Antipyr.; Analg.—*Uses*: Dysent., rheumatic affections, typhoid, pneumonia, &c.

**Phenoresorcinol Merck** (10)

Mixt. 67 parts phenol & 33 parts resorcinol.—*Sol. W.*—*Antiseptic.*

**Phenosal** (20)

(Phenitidin Salicylacetate or Acetosalicylate).— $C_2H_5O.C_6H_4.NH.CO.CH_2O.C_6H_4.COOH$ .—Colorl., cryst. powd.—*Sol.* A., E. sl. W.—*Melt.* 182° C.—*Antipyr.*; Antineural.—*Uses*: Sciatica, acute artic. rheumat.—*Dose* 5–15 grains (0.3–1 Gm.).

**Phenosalyl**

9 pts. carboic acid, 1 pt. salicylic acid, 2 pts. lactic acid, & 0.1 pt. menthol mixed by heat.—*Antiseptic.*—*Uses*: *Extern.*, conjunctivitis, in 0.2–0.4% solut.; ecz. in 1%.

**Phenoxycaine Merck** (500)

$C_{14}H_{14}O_3N_4$ , or  $C_8H_9(OC_6H_5)_3N_4O_2$ .—Wh., cryst. powd.—*Sol.* A.—*Melt.* 142° C.—*Anesthetic*; Antineur.; Nar.—*Uses*: Hypoderm. in migraine, sciatica, rheum., &c.—*Dose* 4 grains (0.25 Gm.).

**Phenyl Benzoate.**—see **Phenol Benzoate****Phenyl Blue**

(New Blue; Dimethylphenylammoniumbetanaphthoxazine Hydrochloride; Meldola's Blue; Naphtylene, or Metamine, Blue; Cotton Blue R).— $C_{18}H_{15}N_2ClO$ , or  $Cl.N.(CH_3)_2.C_6H_3(N.O)-C_{10}H_6$ .—Dark-violet powd. (free fr. arsenic).—*Sol. W.*, A.—*Uses*: Dye. cotton indigo blue, w. tannin & tartar emetic.

**"Phenyl Chloride."**—see **Benzene, Monochloro-****Phenyl Chloroform.**—see **Benzotrichloride****Phenyl Cyanide.**—see **Benzonitrile****Phenyl Formamide.**—see **Formanilid****Phenyl Hydride.**—see **Benzene****Phenyl Hydroxide.**—see **Acid Carboic; Phenol****Phenyl Salicylate Merck** (2)

(Phenyl Ester of Salicylic Acid; Salol).—React.-prod., salicylic acid w. phenol & phosphorus pentachloride.— $C_{13}H_{10}O_3$ , or  $C_6H_4(OH).COOC_6H_5[1:2]$ .—Wh., cryst. powd.; faint aromatic odor.—*Sol.* 0.3 E., C., 10 A., B., fatty oils; alm. insol. W.; (2,333 W., 5 A. at 25° C., U. S. P.).—*Melt.* 42–43° C.—*Antisept.*; Antirheum.; Antipyr., &c.—*Uses*: *Intern.*, typhoid fever, diar., dysent., ferment. dyspep., rheum., grip, & cystitis.—*Extern.*, wounds, burns, sores, &c.—Also coating enteric pills; such pills should be taken one hour or more after meals & no oil w. them. The remedy should not be given in gelat. capsules, because it is apt to crystallize in the intestines & form salol concretions.—*Doses*: 3–15 grains (0.2–1 Gm.); as antipyr.: 30–45 grains (2–3 Gm.).

**Phenyl Urethane.**—see **Euphorin****Phenylacetamide.**—see **Acetanilide; Antifebrin****Phenylacetic-acid Nitrile.**—see **Benzyl Cyanide****Phenylacetyl Chloride Merck** (135)

$C_8H_7OCl$ , or  $C_6H_5.CH_2.COCl$ .—Colorl., fum. liq.

**Phenylamine.**—see **Aniline****Phenylaminophenol.**—see **Oxydiphenylamine, Meta-****Phenylamyl Ether.**—see **Amyl Phenate****Phenylaniline.**—see **Diphenylamine****Phenylbenzamide.**—see **Benzanilide****Phenylbenzoylearbinol.**—see **Benzoïn****Phenylcarbamide Merck** (40)

(Phenylurea).— $CO(NH_2).NH.C_6H_5$ .—Colorl. cryst.—*Sol.*, hot W.; A., E.—*Melt.* 114° C.

**Phenyldihydroquinazoline Tannate.**—see **Orexine****Phenyldimethylpyrazole.** } —see **Antipyrine**  
**Phenylene.** }**Phenylene Brown.**—see **Bismarck Brown**

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Phenylenediamine (Meta-) Merck. Pure** (25)  
 (Metadiaminobenzene [or -zol]) — From meta-dinitrobenzene, by reduct.  $\text{C}_6\text{H}_8\text{N}_2$  or,  $\text{C}_6\text{H}_4(\text{NH}_2)_2$  [1:3]. — Crystals. — *Sol.* A, E.

**Phenylenediamine (Meta-) Hydrochloride Merck. Pure** (25)  
 (Lentin; Metadiaminobenzene Hydrochloride). —  $\text{C}_6\text{H}_4(\text{NH}_2)_2 \cdot 2\text{HCl}$  — Colorl. to reddish cryst. powd. — *Sol.* W. — *Uses.* In acute diar. caused by contaminated food, tuberculosis, amyloid condition of intest. walls, &c. — *Doses:*  $1\frac{1}{2}$ –5 grains (0.1–0.3 Gm.) 3 t. p. d.; children,  $\frac{1}{6}$  grain (0.01 Gm.). — *Max. D.* 5 grains (0.3 Gm.).

**Phenylenediamine (Meta-) Hydrochloride Merck. — Reagent** (30)  
 (Metadiaminobenzene Hydrochloride). —  $\text{C}_6\text{H}_4(\text{NH}_2)_2 \cdot 2\text{HCl}$ . Wh., or sl. reddish-wh., cryst. powd. — *Sol.*, eas. W. — Used as reagent in 1:200 solut.; if solut. has a color, decolorize by heat. w. previously ignited animal charcoal. — *Uses:* Detect. nitrites in water, aldehyde, &  $\text{H}_2\text{O}_2$ .  
*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Phenylenediamine (Meta-) Sulphate Merck** (25)  
 $\text{C}_6\text{H}_4(\text{NH}_2)_2 \cdot \text{H}_2\text{SO}_4$ . — Colorl. to reddish cryst. — *Sol.* W., A. — *Uses:* Photography.

**Phenylenediamine (Para-) Merck. — Pure** (25)  
 (Paradiaminobenzene [or, -zol]). — Fr. acetanilide by nitration & reduct. w. tin & hydrochloric acid. —  $\text{C}_6\text{H}_8\text{N}_2$  or,  $\text{C}_6\text{H}_4(\text{NH}_2)_2$  [1:4]. — Reddish, cryst. leaflets. — *Sol.* W., A., E. — *Melt.* 140° C. — *Boil.* 267° C. — *Uses:* A 2% aq. solut. paraphenylenediamine with 1.4% solut. KOH has been recom. as a proprietary hair dye. To develop a black color 3% hydrogen peroxide is added; for brown, 5% ferric-chloride solut. The dye must be used with caution, as toxic symptoms may develop! The mixtures described are used technically for dyeing dead hair, &c., according to patented processes.

**Phenylenediamine (Para-) Hydrochloride Merck. — Powder** (25)  
 (Paradiaminobenzene [or, -zol] Hydrochloride). — Fr. paradinitrobenzene by reduct. w. tin & hydrochloric acid. —  $\text{C}_6\text{H}_4(\text{NH}_2)_2 \cdot 2\text{HCl}$ . — Reddish, cryst. powd. — *Sol.* W., A., E. — *Melt.* 147° C.

*Phenylethyl Carbamate.* — see **Euphorin**

*Phenylethylene.* — see **Styrene**

**Phenylglucosazone Merck** (150)  
 Fr. phenylhydrazine hydrochloride, by dextrose w. heat. —  $\text{C}_{18}\text{H}_{22}\text{N}_4\text{O}_4$ . — Fine, yellow need. — *Sol.*, hot A. — *Melt.* 204–205° C.

*Phenylglycolantipyrene.* — see **Tussol**

*Phenylglycolyl-n-methyl-β-vinyldiacetonalkamine Hydrochloride.* — see **Euphthalmine Hydrochloride**

**Phenylhydrazine Merck** (10)  
 Fr. aniline by diazo-reaction & subseq. reduct. —  $\text{C}_6\text{H}_8\text{N}_2$  or,  $\text{C}_6\text{H}_5\text{NH.NH}_2$ . — Yellowish to red-brown liq.; faint arom. odor; absorbs oxygen fr. air & reddens. — *Sol.* A., E.; sl. in W. — Solidif. by cold, to plates melt. at 23° C. — *Boil.* 241–242° C. at 750 Mm. — *Caut.* Keep well stoppered.

**Phenylhydrazine Merck. — Reagent** (15)  
 $\text{C}_6\text{H}_5\text{NH.NH}_2$ . — Colorl. or sl. yellowish, highly refract. liq. — *Sol.*, sl. cold, more read. hot. W.; eas. A., E. — *Boil.* 233° C. — Solidif. when cold to plates melt. at 23° C. — *Tests:* 2 Cc. + 20 Cc. 2%  $\text{C}_2\text{H}_5\text{O}_2$  — solut. should be clear. — *Uses:* Detect. aldehydes, ketones (sugars), &  $\text{CS}_2$ ; determ. carbonyl oxygen in ketones & aldehydes; also in form of salts, & particularly in urinalysis, for sugars which reduce Fehling's solut.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Phenylhydrazine Acetate** (30)  
 $\text{C}_6\text{H}_8\text{N}_2 \cdot \text{C}_2\text{H}_3\text{O}_2$ . — Scales. — *Sol.* W.

**Phenylhydrazine Hydrochloride Merck** (10)  
 $\text{C}_6\text{H}_8\text{N}_2 \cdot \text{HCl}$ . — Minute, colorl. to yellowish cryst. — *Sol.* W., A. — Salt most frequently used in analysis for differentiating various sugars.

**Phenylhydrazine Oxalate Merck** (15)  
 $(\text{C}_6\text{H}_8\text{N}_2)_2 \cdot \text{C}_2\text{H}_2\text{O}_4$ . — Colorl. leafl. — *Sol.*, eas. hot W.; diff. cold W.; alm. insol. A. & E.

**Phenyllactosazone Merck** (250)  
 Reaction-prod. of phenylhydrazine & lactose. —  $\text{C}_{24}\text{H}_{32}\text{N}_4\text{O}_{10}$ . — Yellow, granular mass. — *Sol.* 80–90 of hot W. — *Melt.*, abt. 200° C.

*Phenylmethane.* — see **Toluene**

*Phenylmethylketone.* — see **Hypnone**

**Phenylmethylpyrazolon Merck** (70)  
 Fr. phenylhydrazine, by acetoacetic ether. —  $\text{C}_{10}\text{H}_{10}\text{N}_2\text{O}$ , or  $\text{C}_6\text{H}_5\text{N}(\text{CO} \cdot \text{CH}_2) \cdot \text{N} \cdot \text{C} \cdot \text{CH}_3$ . — Wh., cryst. powd., or prisms. — *Sol.* A.; hot W. — *Melt.* 127° C.

*Phenylmustard Oil.* — see **Oil Phenylmustard**

*Phenylone.* — see **Antipyrine**

*Phenylsulphocarbamide.* — see **Phenylthiocarbamide**

**Phenylthiocarbamide Merck** (25)  
 (Phenylthiourea; Phenylsulphocarbamide). — Fr. phenylmustard oil, by amm. —  $\text{C}_6\text{H}_5\text{N}_2\text{S}$  or,  $\text{NH}_2 \cdot \text{CS} \cdot \text{NH}(\text{C}_6\text{H}_5)$ . — Colorl. need; v. bitter taste. — *Sol.* A.; sl. in W. — *Melt.* 54° C.

*Phenylthiourea.* — see **Phenylthiocarbamide**

*Phenylurea.* — see **Phenylcarbamide**

**Phesin** (30)  
 Sulpho-derivative of phenacetin. —  $(\text{O} \cdot \text{C}_2\text{H}_5) \cdot \text{C}_6\text{H}_3(\text{NH} \cdot \text{CO} \cdot \text{CH}_3) \cdot \text{SO}_3\text{Na}$ . — Pale, reddish-

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



brown, light, odorl. powd.; sl. caustic & saline taste.—*Sol.*, eas. W.—*Antipyr.*; *Antineural.*—*Uses:* As of acetphenetidin.—*Dose* 8-15 grains (0.5-1 Gm.).

**Phloretin Merck.—Cryst.** (250  
(Phloretic Acid).—Fr. phloridzin by boil. dil.  $\text{H}_2\text{SO}_4$ .— $\text{C}_{16}\text{H}_{14}\text{O}_6$ , or,  $(\text{OH})_2\text{C}_6\text{H}_2\text{O}_6\text{C}_6\text{H}_4\text{CH}-(\text{CH}_2)_3\text{COOH}$ .—Yellowish powd.—*Sol.*, alkalies, A.—*Melt.* 180° C.

**Phloridzin Merck** (60  
(Phlorizin; Phlorrhizin).—Glucoside fr. root-bark apple, pear, plum, & cherry trees.— $\text{C}_{21}\text{H}_{24}\text{O}_{10}+2\text{H}_2\text{O}$ .—Sm., light, wh., silky need.; sweet w. bitter after-taste.—*Sol.* A., hot W.—*Melt.*, at 108° C., then solidifies, & then again melts at 170° C.—On boil. w. dil. mineral acids decomp. into glucose & phloretin.—*Antipyr.*; *Tonic*, *Antiper.*—*Uses:* Remit. & intermit. fever. Large doses produce severe glycosuria.—*Dose* 10-15 grains (0.6-1 Gm.) several t. p. d.

**Phloroglucinol Merck** (80  
(Trioxybenzene [or -benzol]; Phloroglucin).—Fr. resorcinol, by fusing w. caustic soda.— $\text{C}_6\text{H}_3\text{O}_3+2\text{H}_2\text{O}$ , or,  $\text{C}_6\text{H}_3(\text{OH})_3[1:3:5]+2\text{H}_2\text{O}$ .—Wh. or yellowish cryst.—*Sol.*, abt. 100 W.; A., E.—*Melt.*, when rapidly heated, at 217-219° C.; when slowly heated, at 200-209° C.—*Antisep.*; *Antipyr.*; *Tonic*.—*Uses:* Chem.; also as decalcifying agent for bones.

**Phloroglucinol Merck.—Reagent.**—Free fr. diresorcinol (160  
 $\text{C}_6\text{H}_3(\text{OH})_3+2\text{H}_2\text{O}$ .—Wh., or sl'y yellowish, cryst. powd.—*Sol.*, eas. W., A., E.—*Melt.* 200-209° C. when slowly heat.; 217-219 when rapid. heat.—Loses water of cryst. at 100° C.—*Test:* (*Diresorcinol*) heat a few milligr. w. 1 Ce. conc.  $\text{H}_2\text{SO}_4+1-2$  Ce. acetic anhydride 5-10 min. in boil. W.—Bath—no blue-violet color.—*Uses:* Determ. pentoses. Chiefly w. vanillin (as Guenzburg's reagent) as reagent for free HCl in gastric juice, & in microscopy for detecting wood tissue.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Phloroglucinol-Vanillin Merck**  
Mixt. phloroglucinol w. vanillin.—*Uses:* As Guenzburg's solution (q. v.).

**Phloroglucinol-Vanillin Paper**  
(Guenzburg's Paper).—Paper impregnated w. phloroglucin-vanillin.—*Uses:* Detecting free HCl in gastric juice.

**Phlorol Merck** (175  
(Orthoethylphenol).—Fr. orthoaminophenyl-ethane by the diazo-reaction.— $\text{C}_6\text{H}_4\text{C}_2\text{H}_5\text{OH}$ .—Colorl. liq.; odor of phenol.—*Sol.* A., E.; sl. in W.—*Boil.* 211° C.

**Phloxin RBN Merck** (12  
Sodium salt tetrabromotetrachlorofluorescein.—Red powd.—*Sol.* A. & W. w. bluish-red color.—*Uses:* As a dye.

**Phorone Merck** (300  
(Diisopropylideneacetone; Paraoxyquinone).—Fr. acetone by quicklime or conc. HCl.— $\text{C}_6\text{H}_{14}\text{O}$ , or,  $\text{CO}(\text{CH}:\text{C}(\text{CH}_3)_2)_2$ .—Yellow prisms.—*Insol.* W.—*Melt.* 28° C.—*Boil.* 196° C.

**Phosphine.**—see **Chrysaniine Yellow**  
**Phosphonium Iodide Merck** (90  
(Iodophosphine).—Fr. hydriodic acid gas w. dry phosphine.— $\text{PH}_4\text{I}$ .—Colorl. cryst.; decomp. w. W.—*Uses:* Chem.

**Phosphoric Anhydride or Oxide.**—see **(Acid) Phosphoric Anhydride**

**Phosphoric & Phosphorous Salts.**—see under **Phosphorus**

**Phosphorus**  
*Etymol.*: Fr. Grk. "phos," light, & "pherein," to bear or carry; because of its luminosity. Discovered in 1669 by Brandt.—Non-metal. element—P.—Yellowish, semi-transp. sticks; waxy luster when cut; luminous in dark on expos.—Sp. Gr. 1.83 at 10° C.; 1.82 at 25° C.—*Sol.* 350 absol. A. at 15° C.; 240 boil. absol. A.; 80 absol. E., abt. 50 fixed oils, abt. 25° C.; v. sol.  $\text{CS}_2$ ; alm. insol. W.—*Melt.* 44° C.—Stim. to nerv. system.—*Uses:* Mania, melancholia, sexual exhaust., cerebral softening, neural., rachitis, osteomalacia, osseous fractures, caries, & in var. skin dis. Gen'ly administered in elixir, oil, pill, or tinct.—*Techn.*, phosphorus is used largely in manuf. matches, rat poison, manuf. various phosphorus salts, & phosphor-bronze for ordnance, bearings, packings, screws, &c.—*Doses:*  $\frac{1}{100}-\frac{1}{30}$  grain (0.0006-0.002 Gm.) 3 t. p. d. in solution or pill; never in substance. For children,  $\frac{1}{120}-\frac{1}{60}$  grain (0.0005-0.001 Gm.) p. day in chocolate pastilles, or as phosphorized cod-liver oil. In epilepsy after sunstroke  $\frac{1}{20}$  grain (0.003 Gm.) 3 t. p. d.—*Extern.*, in oily solut. or oint. 1:50-100 in paralytic seizures.—*Antid.*, emetics & stomach siphon, 0.5-1% solut. potass. permang., charcoal, lime-water. No oils or fatty matters must be given.—*Incomp.*, sulphur, iodine, oil of turpentine, potass. chlorate, &c.—*Caut.* Inflammable! Keep under water.

**do. Merck.—Amorphous** (2  
(Red, or Allotropic, Phosphorus).—P.—Brown to red powd.; not spontaneously inflam. in air.—*Insol.* in ordinary solvents of phosphorus.—Does not melt.—Sp. Gr. 2.1 at 17° C.—*Uses:* *Techn.*, safety matches.—Not poisonous.

**Phosphorus Bromide.**—see **Phosphorus Pentabromide; Phosphorus Tribromide**

**Phosphorus Chloride.**—see **Phosphorus Pentachloride; Phosphorus Trichloride**

**Phosphorus Iodide.**—see **Phosphorus Triiodide**

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Phosphorus Oxychloride Merck** (8)  
(Phosphoryl Chloride).— $\text{POCl}_3$ .—Str'y fum., clear, colorl. liq.; pung. odor. Sp. Gr. 1.7 at  $12^\circ\text{C}$ .—Solidif. at  $-10^\circ\text{C}$ . to crystalline form.—*B. il.*  $110^\circ\text{C}$ .—*Uses*: As solvent in cryoscopy.

**Phosphorus Pentabromide Merck** (10)  
(Phosphoric Bromide or Perbromide).— $\text{PBr}_5$ .—Yellow, cryst. mass.—Decomp. by W.—*Melt.* under  $100^\circ\text{C}$ , w. decomp.—*Uses*: Synthetic org. chem.—*Caut.* Keep hermetically sealed.

**Phosphorus Pentachloride Merck.—Pure** (8)  
(Phosphoric Chloride or Perchloride).— $\text{PCl}_5$ .—Fum., yellow, cryst. masses; decomp. on contact w. air or W.—*Uses*: Org. chem. for replacing hydroxyl groups by Cl, particularly for converting acids into acid chlorides.

**Phosphorus Pentasulphide Merck** (8)  
(Phosphoric Sulphide; Thiophosphoric Anhydride; Phosphorus Persulphide).— $\text{P}_2\text{S}_5$ .—Yellow, radiate, cryst. masses; peculiar odor.—*Sol.* carbon disulphide.—Decomp. by W.—*Melt.*  $274\text{--}276^\circ\text{C}$ .—*Uses*: Org. chem.—*Incomp.* W.—*Caut.* Keep in sealed vessels!

**Phosphorus Pentoxide.—see (Acid) Phosphoric Anhydride**

**Phosphorus Perbromide.—see Phosphorus Pentabromide**

**Phosphorus Perchloride.—see Phosphorus Pentachloride**

**Phosphorus Persulphide.—see Phosphorus Pentasulphide**

**Phosphorus Sulphide.—see Phosphorus Pentasulphide, & Trisulphide**

**Phosphorus Tribromide Merck** (12)  
(Phosphorous Bromide).— $\text{PBr}_3$ .—Colorl., fum. liq.; v. penetrating odor.—Sp. Gr. 2.9249 at  $0^\circ\text{C}$ .—*Boil.*  $175^\circ\text{C}$ .—Decomp. by W.

**Phosphorus Trichloride Merck** (6)  
(Phosphorous Chloride).— $\text{PCl}_3$ .—Clear, colorl., fum. liq.; quickly decomp. in moist air.—Sp. Gr. 1.616 at  $0^\circ\text{C}$ .—*Misc.* E., C., carbon disulphide, B.—*Boil.*  $78^\circ\text{C}$ .

**Phosphorus Triiodide Merck** (20)  
 $\text{PI}_3$ .—Red cryst.—*Melt.*  $55^\circ\text{C}$ .—Decomp. w. W. & forms phosphorous acid, hydrogen phosphide, hydriodic acid, & solid, yellow hydrogen phosphide,  $\text{P}_4\text{H}_2$ .

**Phosphorus Trisulphide Merck** (8)  
(Phosphorous Sulphide; Thiophosphoric Anhydride).— $\text{P}_2\text{S}_5$ , or,  $\text{P}_4\text{S}_6$ .—Grayish-yellow, odorl., tastel. masses.—*Sol.*, carbon disulphide.—*Melt.*, eas. at abt.  $200^\circ\text{C}$ .; sublimes when strongly heated.—*Uses*: Org. chem.—*Incomp.* W.—*Caut.* Keep sealed.

**Phosphoryl Chloride.—see Phosphorus Oxychloride**

**Phosphotal.—see Creosote Phosphite**

**Photophor.—see Calcium Phosphide**

**Phtalamide, } —see Phtalylidiamide**  
**Phtaldiamide, }**

**Phtalic Anhydride.—see (Acid) Phtalic Anhydride**

**Phtalide Merck** (150)  
(Anhydride of Ortho-oxyethylbenzoic Acid).—Fr. phtalyl chloride, by phosphorus w. HI.— $\text{C}_8\text{H}_6\text{O}_2$ , or,  $\text{C}_6\text{H}_4\text{CO}_2\text{C}_2\text{H}_5$ .—Colorl. needl.; cinnamon-like odor.—*Melt.*  $73^\circ\text{C}$ .—*Boil.*  $290^\circ\text{C}$ .—*Sol.*, eas. A.; sl. W.

**Phtalimide Merck** (25)  
Fr. amm. phtalate, by heat.— $\text{C}_8\text{H}_5\text{NO}_2$ , or,  $\text{C}_6\text{H}_4(\text{CO}_2\text{NH})_2$ .—Colorl. prisms.—*Sol.* E.—*Melt.*  $238^\circ\text{C}$ .

**Phtalimide-Potassium.—see Potassium Phtalimide**

**Phtalin.—see Phenolphthalin**

**Phtalyl Chloride Merck** (60)  
Fr. phtalic acid, by phosphorus chloride w. heat.— $\text{C}_8\text{H}_4\text{O}_2\text{Cl}_2$ , or,  $\text{C}_6\text{H}_4(\text{CO}_2\text{O})_2\text{Cl}_2$ .—Oily, colorl. liq.—*Sol.* E.—*Boil.*  $275^\circ\text{C}$ . at 726 Mm.

**Phtalylidiamide Merck** (50)  
(Phtaldiamide; Phtalamide).—Fr. phtalmalonic ester, by amm.— $\text{C}_8\text{H}_5\text{N}_2\text{O}_2$ , or,  $\text{C}_6\text{H}_4(\text{CO}_2\text{NH}_2)_2$ .—Microcryst. powd.—*Insol.* cold W., A., E.—*Melt.*  $219\text{--}220^\circ\text{C}$ .

**Phycite.—see Erythrol**

**Physalis.—see Alkekengi**

**Physic Nut.—see Curcas**

**Physostigma.—U. S. P.**

(Calabar Bean; Ordeal Bean; Chop Nut; Split Nut).—Seed of *Physostigma venenosum*, Balfour. Leguminosae. Papilionaceae.—*Habit.*: West Africa (near mouths of Niger & Old Calabar rivers).—*Introd.* into India & Brazil.—*Etymol.*: Fr. Grk. "physis," bladder, or air, & "stigma," stigma, i.e., the stigmatic appendage is hollow & inflated. Lat. "venenosus," poisonous, i.e., the action of the plant. "Calabar" is the name of the district whence the bean is obtained.—Oblong, somewhat reniform beans,  $\frac{3}{5}\text{--}1\frac{1}{5}$  in. (15–30 Mm.) long,  $\frac{2}{5}\text{--}\frac{4}{5}$  in. (10–20 Mm.) broad, &  $\frac{2}{5}\text{--}\frac{3}{5}$  in. (10–15 Mm.) thick; chocolate-brown color; inodor.; bean-like taste.—*Constit.*: Physostigmine (eserine),  $\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2$ ; calabarine; eseridine,  $\text{C}_{15}\text{H}_{23}\text{N}_3\text{O}_3$ ; eseramine,  $\text{C}_{16}\text{H}_{25}\text{N}_3\text{O}_3$ ; phytosterin; proteids.—*Myotie*; Sialag.; Antineural.; Antispasm.; Sed.; Diaphor.; Motor Depressant; Purgat.; Antitetanic; Nerve Tonic.—*Uses*: Tetanus, strychn. & atropine poisoning, neural., convuls., chron. bronch., muscul. atony of bowels, chron. constip.—A 1:15 glycerinic solut. of the alcoh. extr. is also used to cause

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



myosis by instilling into the eye in atropine mydriasis.—*Doses*: 1–3 grains (0.06–0.2 Gm.).—*Alcoh. extr.*,  $\frac{1}{12}$ – $\frac{1}{4}$  grain (0.005–0.015 Gm.); *Max. D.*  $\frac{1}{2}$  grain (0.03 Gm.) single,  $\frac{3}{4}$  grain (0.05 Gm.) daily.—*Fld. extr.*, 1–3  $\text{m}$  (0.06–0.2 Cc.).—*Tinct.*, 5–10  $\text{m}$  (0.3–0.6 Cc.).—*Antid.*, emacants, atropine, hydrated chloral, strychnine, stimulants, tannin, emetics, stomach siphon, electricity, artif. respiration.

### Physostigmine Merck (1313)

(Eserine).—Alkaloid fr. seeds *Physostigma venenosum*, Balfour. (Calabar Bean).— $\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2$ , or,  $\text{CH}_3\text{NH.CO.NH.C}_{13}\text{H}_{15}\text{N.OH}$ .—*Colorl.*, v. hygrosc. cryst., readily changing to red, resin-like mass.—*Sol.*, eas. A., E., C., B.; sl. in W.—*Spinal depressant*; *Antitetan.*; *Peristaltic*; *Stim.*; *Laxat.*; *Analg.*; & *Myotic*.—*Uses*: Usually in form of its salts, particularly the salicylate & sulphate, in traumatic tetanus, tonic convulsions, strychnine poison., neural., constip., muscular rheum., phantom tumor, chronic bronch., &c.—*Doses*:  $\frac{1}{120}$ – $\frac{1}{60}$  grain (0.0005–0.001 Gm.) in pill or solut., sev. t. p. d.; children,  $\frac{1}{2400}$ – $\frac{1}{1200}$  grain (0.000025–0.00005 Gm.).—*Max. D.*  $\frac{1}{30}$  grain (0.002 Gm.) single;  $\frac{1}{20}$  grain (0.003 Gm.) p. d.—*Appl.*, in 0.2–0.5% solut. as eye drops in ophthalm. neonatorum, overcoming the mydriasis of atropine, breaking posterior adhesions in prolapsus of the iris, in cataract, in glaucoma, & in corneal ulcers.—*Antid.*, emetics, stomach siphon, artif. respir., stimulants, hydrated chloral, & atropine subcut. ( $\frac{1}{120}$  grain [0.0005 Gm.] 3 t. p. d.).—In veter. med., as lax. in colic & chron. gastric & intest. catarrh of horses, usually as sulphate, in doses of  $\frac{1}{2}$  grains (0.1 Gm.) in 30–150  $\text{m}$  (2–10 Cc.) cold water subcut.; in cattle,  $\frac{1}{2}$ –3 grains (0.1–0.2 Gm.).—*Caut.* Poison! Keep dry, and from light.

### Physostigmine Benzoate Merck (1750)

(Eserine Benzoate).— $\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2\cdot\text{C}_6\text{H}_5\text{O}_2$ .—Hard, wh. cryst.—*Sol.* W., A.; sl. in E.—*Uses*: *Doses*, &c.: As of physostigmine.

### Physostigmine Bisulphate

( $\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2$ ). $\text{H}_2\text{SO}_4$ .—Obt. by interact. of physostigmine &  $\text{H}_2\text{SO}_4$  in ether. solut.—Bulky, wh., v. hygrosc. cryst. powd.

### Physostigmine Borate Merck (1750)

(Eserine Borate).—Wh., cryst. powd.—*Sol.* W.—*Myotic*.—*Solut.*s are permanent & do not bec. irrit.—*Uses*, *Doses*, *Antid.*, &c.: As of physostigmine.—*Caut.* Keep dry, fr. light.

### Physostigmine Citrate Merck (1750)

(Eserine Citrate).—( $\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2$ ). $\text{C}_6\text{H}_8\text{O}_7$ .—Wh., microcryst. powd.—*Sol.* W., A.—*Caut.* Keep dry, fr. light.

### Physostigmine Hydrobromide Merck (1750)

(Eserine Hydrobromide).— $\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2\cdot\text{HBr}$ .—Wh. cryst.—*Sol.* W.

### Physostigmine Hydrochloride Merck (1750)

(Eserine Hydrochloride).— $\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2\cdot\text{HCl}$ .—Wh. cryst.—*Sol.* W.

### Physostigmine Nitrate

(Eserine Nitrate).— $\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2\cdot\text{HNO}_3$ .—Wh., cryst. powd.; readily becomes red.—*Sol.* W.

### Physostigmine-Pilocarpine Merck (1167)

(Eserine-Pilocarpine).—Obt. by cryst. a mixt. physostigmine salicylate 1, & pilocarpine hydrochloride 2.—Wh., cryst. powd.—*Sol.* W., A.—*Anod.*; *Lax.*—*Uses*: *Veter.*, in colic of horses.—*Inj.* (veter.) 6 grains (0.36 Gm.) in 5 Cc. of water.

### Physostigmine (Pseudo-) Merck (15000)

Fr. Cali nuts or false Calabar bean (seed of a *Mucuna* species).—Identical with physostigmine.—*Uses* & *Doses*: As of physostigmine.

### Physostigmine Salicylate Merck (1111)

(Eserine Salicylate).— $\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2\cdot\text{C}_7\text{H}_5\text{O}_3$ .—*Colorl.* or sl'y yellowish, lustr. cryst.—*Sol.* 85 W.; 15 A.; (72.5 W., 12.7 A., 175 E., 8.6 C. at 25° C.; 15 W. at 80° C.; 4 A. at 60° C., U. S. P.).—*Solut.*s easily redden.—*Melt.* 178–180° C.—Most serviceable physostigmine salt.—*Uses*: 0.5% aqu. solut. is used to contract pupil; other actions, uses, doses, &c., as of physostigmine.—*Caut.* This salt is but little affected by light, but must be kept dry. Red solut's have lost power.

### Physostigmine Sulphate Merck (1111)

(Eserine Sulphate).—( $\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2$ ). $\text{H}_2\text{SO}_4$ .—Wh. or sl'y yellowish, deliq., microcryst. powd.; bitter taste; easily reddens on expos. to air & light.—*Sol.* W., A., C.; (1200 E. at 25° C., U. S. P.).—*Melt.* 140–142° C. w. decomp.—*Uses*, *Doses*, &c.: As of physostigmine. Favorite w. veter. surgeons for hypodermic use for colic in horses:  $\frac{1}{2}$  grains (0.1 Gm.).—*Caut.* Keep dry, fr. light.

### do. Merck.—Scales (1111)

### Physostigmine Sulphite Merck (1750)

(Eserine Sulphite).—( $\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2$ ). $\text{H}_2\text{SO}_3$ .—Wh., apparently amorph. powd.—*Sol.*, eas. W., A.—*Uses*: As of o. physostigmine salts, but possesses the v. desirable property of afford. a solut. that remains colorl. for many weeks.—*Dose*: As of physostigmine.

### Physostigmine Tartrate Merck (1750)

(Eserine Tartrate).—( $\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}_2$ ). $\text{C}_4\text{H}_6\text{O}_6$ .—*Colorl.* to yellowish cryst.—*Sol.* W.—*Uses*, *Doses*, &c.: As of physostigmine.

### Phytolacca.—U. S. P.

(Poke Root; Garget).—Dried root (also berries, though not official) of *Phytolacca decandra*, L. *Phytolacaceae*, collected in autumn.—*Habit.*: North America; natur. in southern Europe.—*Etymol.*: Grk. "phyton," plant, & Lat. "lacea," lake color, red, i.e., the juice of the fruit is red. Grk. "deka," ten, & "andros," stamen, i.e., the flower has 10 stamens. "Poke" is a corruption

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



of "pokou," its former Virginian name.—*Constit.*—Resin, tannin, phytolaccin, asparagin.—*Effect.*—Purgat.—*Alter.*—Ago-L. Readyvent.—*Uses.*—Chronic rheum., gout, & obesity, toralitis, chorea, scrofula, syphilis, &c.—*Extern.*, as oint. in ulcers, psoriasis, tinea capitis, eczema, & to arrest flow of milk.—*Dose.*—*Root.* Alterat., 5–30 grains (0.3–2 Gm.); emet., 15 grains (1 Gm.).—*Extr.*,  $\frac{1}{4}$ –1 grain (0.015–0.06 Gm.) alterat., 3–6 grains (0.2–0.36 Gm.) emetic.—*Fld. extr.*, 1–5 ml (0.06–0.3 Cc.) alterat.; 30 ml (2 Cc.) emetic.—*Berry.*—*Fld. extr.*, 5–15 ml (0.3–1 Cc.) in skin disease & syphilitic affect., & as an antifat.

**Phytolaccin** 15

Alcoh. resinoid fr. root Phytolacca decandra, L. (Poke Root).—*Sol.* A.—*Linctic.*; Purg.; Narcot.; Alter.—*Uses.*—Chronic rheum., cancer, & syph.—*Dose.* 1–3 grains (0.06–0.2 Gm.).

**Pichi**

Lvs., branches, & wood of Fabiana imbricata, Ruiz & Pavon, Solanaceae.—*Habit.*: Chili; Peru.—*Etymol.*: "Pichi-Pichi" is the Chilian name of the plant.—*Constit.*: Fabianine.—*Diuret.*; Anticatar.; Cholag.—*Uses.*: Specific in cystitis & vesical catarrh, contraindicated in albuminuria; also used in catarrhal inflam. of genito-urinary organs, renal & vesical calculi, &c.—*Doses.*: 5–60 grains (0.3–4 Gm.).—*Alcoh. extr.*, 3–12 grains (0.2–0.8 Gm.).—*Fld. extr.*, 15–60 ml (1–1 Cc.).

**Picoline Merck** (25)

(Alphamethylpyridine; Alphapicoline).—Fr. dry distil. of bones or coal.— $C_6H_7N$ , or  $C_5H_5N(CH_3)$ .—*Color.* liq.—*Sp. Gr.* 0.952 at 10° C.—*Misc.* W., A.—Nerve Sedative.—*Uses.*: Lessen heart's action when diseased.

*Picramnia.*—see **Cascara Amarga**

**Picratol** (25)

(Silver Trinitrophenolate).—Yellow cryst.—*Sol.* A.—30% Ag.—*Antisept.*; Alter.; Antigonorrhoeic.—*Uses.*: As of other silver compounds in gonorr., catarrhal affect. of nose & throat, &c.

*Picrocarmine.*—see **Bizzozero's, Friedlander's, Klemensiewicz's, Mayer's, Ranvier's, & Weigert's, Picrocarmine**

*Picrocarmine-Eosine.*—see **Lang's Picrocarmine-Eosine**

*Picrocarmine-Sodium.*—see **Gedölst's Picrocarmine-Sodium**

*Picro-Citric Acid Paper.*—see **Citro-Picric Acid Paper**

**Picrol**

(Potassium Diiodoresorcinolmonosulphonate).— $KC_6H_2(OH)_2SO_3$ .—Wh., cryst. powd.; odorl.—52.8% iodine.—*Sol.* A., E.—*Antiseptic.*—*Uses.*: Substit. for iodoform.

*Picrolithium-Carmine.*—see **Orth's Picrolithium-Carmine**

*Picro-Nitric Acid.*—see **Mayer's Picro-Nitric Acid**

*Picro-Sulphuric Acid.*—see **Kleinenberg-Mayer's Picro-Sulphuric Acid**

**Picrotoxin Merck** 100

(Cocculin).—Neutral prin. fr. seed of Anamirta paniculata, Colebrooke (Cocculus indicus, C. palmatus).— $C_{15}H_{15}O_4$ , most probably consists of two molecules of picrotoxin,  $C_{15}H_{16}O_4$ , & one molecule picrotin,  $C_{15}H_{14}O_2$ .—*Color.* cyst. v. bitter taste.—*Sol.*, alkalis & acids, 9 A., 210 W.—*Melt.* 192° C.—*Antidotr.*, Strychn., Antispasmodic.—*Uses.*: Night sw. of phth., paral., epilepsy, chorea, flatulent dyspep., & dysmenor.; also antid. to chloral & strychnanthin.—*Dose.*  $\frac{1}{100}$ – $\frac{1}{10}$  grain (0.0005–0.002 Gm.) subcut., or per os.—*Max. D.*,  $\frac{1}{10}$  grain (0.006 Gm.) single;  $\frac{1}{3}$  grain (0.02 Gm.) p. d.—*Antid.*, emetics, stomach siphon, tannin, hydrated chloral, & stimulants. *Caut.* Poison!

*Pigment Brown.*—see **Sudan Brown, Fat Dye**

**Pilocarpidine Nitrate Harnack-Merck** (2500)

Salts of alkaloid fr. lvs. Pilocarpus Jaborandi, or P. microphyllus.— $C_{11}H_{14}N_2O_2.HNO_3$ .—Wh. cryst.—*Sol.* W., A.—Does not exhibit specific jaborandi effect even in 7 grain (0.4 Gm.) doses.

**Pilocarpine Merck.—Pure** (850)

Active alkaloid fr. lvs. Pilocarpus Jaborandi, Holmes, or P. microphyllus, Stapf (Jaborandi).— $C_{11}H_{16}N_2O_2$ , or  $C_9H_9N.C(CH_3)_2.N(CH_3)_2.CO_2$ .—*Color.* to yellow, syrupy liq.—*Sol.*, eas. W.; A., C.—*Sialagogue*; Myotic; Diaph.; Diuret.; Galactagogue.—*Uses.*: *Intern.*, Dropsy, coryza, laryngitis, bronch., asthmatic dyspnea, uræmic convuls., rheum., obesity, scarlat., croup, diab., syph., &c. Expedites resolution in pneum., hastens labor. Antid. to atropine. Contraindic. in heart failure & during fasting. Less irrit. to eye than physostigmine.—*Extern.*, 1–2% aqu. solut. for eye wash; pomades & hair washes to promote growth of hair.—*Doses.*:  $\frac{1}{8}$ – $\frac{1}{4}$  grain (0.008–0.015 Gm.) in W., hypoderm. or by mouth; children, under 2 yrs.,  $\frac{1}{300}$  grain (0.002 Gm.); infants,  $\frac{1}{60}$  grain (0.001 Gm.).—*Max. D.*,  $\frac{1}{3}$  grain (0.02 Gm.) single;  $\frac{2}{3}$  grain (0.04 Gm.) p. day.—*Antid.*, emetics, stomach siphon, atropine hypoderm. ( $\frac{1}{120}$ – $\frac{1}{60}$  grain [0.0005–0.001 Gm.]), tannin (5 grains [0.3 Gm.] every 15 min.), ammonia, brandy.—*Incomp.*, silver nitrate, corros. sublimate, iodides, gold salts, potass. permang., alkalies, &c.—*Caut.* Poison! Keep well stoppered.

**Pilocarpine Borate Merck** (850)

$(C_{11}H_{16}N_2O_2)_2.B_4O_7$ .—Wh., deliq. lumps.—*Sol.* W., A.—Diaph.; Myotic; Sialag.—*Uses.*: Chronic iritis, glaucoma & other eye dis.; also in renal affect.—*Dose*  $\frac{1}{8}$ – $\frac{1}{3}$  grain (0.008–0.02 Gm.).

**Pilocarpine Hydrobromide Merck** (850)

$C_{11}H_{16}N_2O_2.HBr$ .—Wh. cryst.—*Sol.* W., A.—*Melt.* 178° C. after previous sintering.—*Uses.*, *Doses*, &c.: As of pilocarpine.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Pilocarpine Hydrochloride Merck. — Highest Purity (140)**

(Pilocarpine Muriate).—Perf'ly free fr. jaborine. — $C_{11}H_{16}N_2O_2 \cdot HCl$ .—Wh., hygrosc. cryst.; sl'y bitter taste.—*Sol.* 0.3 W., 2.3 A., 540 C. at 25° C.; 1.1 A. at 60° C.; insol. E. (U. S. P.).—*Melt.* 193–195° C.; (when dried at 100° C., melts at 195.9° C., U. S. P.).—*Sialag.*; Myotic; Diaph.; Diur.—*Uses*: As of pilocarpine.—*Dose*  $\frac{1}{8}$ – $\frac{1}{4}$  grain (0.008–0.015 Gm.), in water, & given hypodermically or by the mouth.—*Max. D.*  $\frac{1}{3}$  grain (0.02 Gm.) single;  $\frac{2}{3}$  grain (0.04 Gm.) p. day.—*Antid.*, emetics, stomach siphon, atropine, tannin, ammonia, brandy.—*Incomp.*, silver nitrate, corrosive sublimate, tannin, calomel, gold salts, potass. permangan., iodides, alkalies, &c.—*Caut.* Poison! Keep in small, well-stp. bot.

*Note*.—The highest attainable purity, insuring absence of all therapeutically active impurities, makes this article to be preferred by the prescriber & dispenser.

**Pilocarpine Nitrate Merck (140)**

$C_{11}H_{16}N_2O_2 \cdot HNO_3$ .—Wh. cryst. or cryst. powd.—*Sol.* W.; sl. A.; alm. insol. cold absol. A.; (4 W., 60 A., at 25° C.; 16 A. at 60° C.; insol. E., C., U. S. P.).—*Melt.* 170.9° C., U. S. P.—*Uses*, *Doses*, *Antid.*, &c.: As of pilocarpine.

**Pilocarpine Phenate Merck (850)**

$C_{11}H_{16}N_2O_2 \cdot OHC_6H_5$ .—Oily liq.—*Sol.* A., W.—*Uses*: Tuberculosis & malaria.—*Dose*, hypoderm., 1 fl. dr. (4 Cc.) of a 0.02% aq. solut. to which 2.75% carbolic acid is added; the inject. is made once daily, & the quantity gradually increased by 8 m (0.5 Cc.) until the max. d. of 2 fl. dr. (8 Cc.) is reached. In malaria, 45–90 m (3–6 Cc.) of the above solut. is injected daily; after a week, the injections are made only every third day.

**Pilocarpine Salicylate Merck (850)**

$C_{11}H_{16}N_2O_2 \cdot C_7H_6O_3$ .—Wh. cryst.—*Sol.* W., A.—*Melt.* 120° C. after previously sintering.—*Uses* & *Doses*: As of pilocarpine.

**Pilocarpine Sulphate Merck (850)**

$(C_{11}H_{16}N_2O_2)_2 \cdot H_2SO_4$ .—Wh. cryst.—*Sol.* W., A.

**Pilocarpine Tannate Merck (850)**

Grayish-wh. powd.—*Sol.* A.—*Uses*, &c.: As of pilocarpine.

**Pilocarpine Valerate Merck (850)**

(Pilocarpine Valerianate).— $C_{11}H_{16}N_2O_2 \cdot C_5H_{10}O_2$ .—Wh. cryst.—*Sol.* W., A.—*Uses*, *Doses*, &c.: As of pilocarpine.

**Pilocarpus. — U. S. P.**

(Jaborandi).—Leaflets of *Pilocarpus microphyllus*, Stapf, & *P. Jaborandi*, Holmes. (Also of *P. pinnatifolius*, Lam. [P. Selloanus, Eng.]). Rutaceae.—*Habit.*: Brazil; Paraguay.—*Etymol.*: Fr. Lat. "pilus," hair, or Grk. "pilos," a cap, & "karpos," fruit, i.e., the fruit is hat-shaped. "Microphyllus," fr. Grk. "mikron," small, &

"phyllon," leaf. "Jaborandi" is the South American name of the plant. "Pinnatifolius," fr. Lat. "pinnatus," feathered, & "folium," leaf, fr. the character of the latter. "Selloanus" after Prof. Sello, a German botanist.—*Constit.*: Volat. oil; jaborine,  $C_{22}H_{32}N_4O_4$ ; pilocarpine,  $C_{11}H_{16}N_2O_2$ ; pilocarpidine,  $C_{10}H_{14}N_2O_2$ ; jaboridine; jaborine,  $C_6H_{11}N_2$ ; jaboric acid,  $C_{19}H_{25}N_3O_5$ ; pilocarpic acid.—Myotic; Sialag.; Diaphor.; Cardiac Depress.; Emet.; Diur.; Galactag.—*Uses*: Dropsy, pulmon. edema, pleurisy w. effus., inflam., chron. irritation, catarrh of muc. membranes, rheumat., & coryza.—*Doses*: 15–60 grains (1–4 Gm.).—*Alcoh. extr.*, 2–5 grains (0.12–0.3 Gm.); 5–10 grains (0.3–0.6 Gm.) as purgat.—*Fld. extr.*, 15–30 m (1–2 Cc.).

**Pimenta. — U. S. P.**

(Allspice; Jamaica Pepper; Semen Amomi).—Dried nearly ripe fruit of *Pimenta officinalis*, Lindley. Myrtaceae.—*Habit.*: East Indies; West Indies; Central- & South America.—*Etymol.*: Lat. fr. the Spanish "pimienta," pepper, i.e., the first European name for allspice.—*Constit.*: Volat. oil; resin; tannin; fixed oil; sugar; gum.—*Stomachic*; Stim.; Carminat.; Condiment.—*Uses*: As of cloves.—*Doses*: 5–30 grains (0.3–2 Gm.).—*Fld. extr.*, 10–30 m (0.6–2 Cc.).

**Pimpernel. — see Pimpinella Saxifraga****Pimpinella Magna**

(Small Burnet Saxifrage; Radix Tragoselinii Majoris).—Root of *Pimpinella magna*, L. Umbelliferae.—*Habit.*: Germany.—*Etymol.*: Lat. "bis," twice, & "pinnula," small wings, i.e., the leaves are bipinnate.—*Constit.*: Volat. oil.—*Uses*: Intern., in chron. catarrh, & angina.—*Extern.*, in mouthwashes, toothpowder, confections, pills, & for chewing.

**Pimpinella Saxifraga**

(Pimpernel; Burnet Saxifrage; Small Saxifrage).—Root of *Pimpinella Saxifraga*, L. Umbelliferae.—*Habit.*: Europe; advent. in U. S.—*Etymol.*: For "pimpinella," see preceding. "Saxifraga," fr. Lat. "saxum," stone, & "frangere," to break, i.e., a remedy for gravel.—*Constit.*: Volat. oil; resin; benzoic acid; pimpinellin.—*Diaph.*; Diur.; Tonic; Stim.; Sialag.—*Uses*: Intern., in chron. catarrhs of muc. membr., amenor., dropsy, & angina.—*Extern.*, as mouthwash (1:20) for toothache.—*Doses*: *Alcoh. extr.*, 5–15 grains (0.3–1 Gm.).—*Fld. extr.*, 20–60 m (1.3–4 Cc.).

**Pinacoline Merck (150)**

(Methylpseudobutylketone).— $CH_3 \cdot CO \cdot C(CH_3)_3$ .—Yellowish liq.; pepperm. odor.—*Sol.* A.; insol. W.—*Sp. Gr.* 0.7999 at 16° C.—*Boil.* 106° C.

**Pinacone Merck (75)**

(Hexyleneglycol; Tetramethylethyleneglycol).—Fr. aqueous acetone, by sodium amalgam.— $C_6H_{14}O_2$ , or  $(CH_2)_2 \cdot C(OH) \cdot C(OH) \cdot (CH_2)_2$ .—Colorl. need.—*Sol.* A., E.; sl. carbon disulphide & W.—*Melt.* 42° C.—*Boil.* 171–172° C.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Pinene Merck.**—Dextrogyrate (35)  
(Austrolene; Laurene, so-called "Menthene")—  
Constit. of many essent. oils. Chief constit. of  
oil of turpentine— $C_{10}H_{16}$ , or,  $CH_3 \cdot CH_2 \cdot CH =$   
 $CH \cdot CH \cdot C(CH_3)_2 \cdot CH_2 \cdot CH_3$ .—Colorl. transp. liq.  
—*Sol.* A.; scarcely in W. —*Sp. Gr.* 0.86 at 0°  
C. —*Boil.* 160° C. —*Caution:* Do not confound w.  
menthene obt. fr. menthol by dehydration!

**do. Merck.**—Levogyrates (80)  
(Terpene).—Chief constit. of French turpentine.

**Pinene Hydrochloride.**—see **Terpene Hydrochloride**

**Pinguin.**—see **Alantol**

**Pini-Pini**

(Arra Diabo[?])—Bark of *Jatropha urens*, var. *Markgravia* Mull. -Argent. Euphorbiaceae.—  
*Habit.*: Brazil.—*Etymol.*: "Pini-Pini" is the  
South American name for the plant. *Jatropha*  
fr. Grk. "iatros," physician, & "trophic," nour-  
ishment; "urens" fr. "uro," to burn, i.e., it  
blisters the skin.—*Uses*: Caustic.

**Pinkroot.**—see **Spigelia**

**Piper.**—U. S. P.

(Pepper; Black Pepper).—Dried unripe fruit  
of *Piper nigrum*, L. Piperaceae. (White pepper  
constitutes the deoiled ripe fruit of *Piper*  
*nigrum*).—*Habit.*: India; Malabar coast; Philip-  
pines; Sumatra; Java; Ceylon; Borneo, &c.—  
*Etymol.*: Lat. "piper," fr. Grk. "piperei," fr.  
"pepto," to digest. Sanskrit "pipala"; Benga-  
lese "pippul"; Arabic "babary."—*Constit.*: Vol-  
atile oil; piperine,  $C_{17}H_{19}NO_3$ ; piperidine,  $C_5H_{11}N$ ;  
chavicol; fat; proteids; resin.—*Stim.*; Febrif.;  
Rubefac.; Tonic; Irritant; Carmin.; Anti-  
pyret.—Used also as spice. White pepper is  
used the same way.—*Doses*: 5-20 grains (0.3-  
1.3 Gm.).—*Alcoh. extr.*, 2-8 grains (0.12-0.5  
Gm.).—*Fld. extr.*, 5-20 m (0.3-1.3 Gm.).—*Oleo-*  
*resin*,  $\frac{1}{4}$ -1 m (0.015-0.06 Gm.).

**Piper Longum**

(Long Pepper).—Immature fruit of *Piper offici-*  
*narum*, Piperaceae, dried in the sun.—*Habit.*:  
East India; Molucca; Java; Ceylon; Philippines.  
—*Etymol.*, *Constit.*, & *Uses*: As of piper.

**Piper Methysticum.**—see **Kava-Kava**

**Piperazidine.**—see **Piperazine**

**Piperazine** (85)  
(Pyrazine Hexahydride; Diethylenediamine;  
Piperazidine; Ethylenimine).—Fr. ethylene  
bromide, or chloride, by ammonia.— $C_4H_{10}N_2$ ,  
or,  $NH(CH_2)_2 \cdot (CH_2)_2 \cdot NH$ .—Colorl., transp.,  
deliq. need.; absorbs carbon dioxide fr. air.—  
*Sol.*, eas. W.—*Melt.* 104-107° C.—*Boil.* 145° C.—  
Antipodagrie; Antirheum.—*Uses*: Gout, lithiasis,  
& rheum.; good solv. of uric acid.—*Dose* 5-10  
grains (0.3-0.6 Gm.) several t. p. d.; hypoderm.,  
 $\frac{3}{4}$ -1 $\frac{1}{2}$  grains (0.05-0.1 Gm.).—For washing

out the bladder, a 1-2 ; solut.—*Incomp.*, acet-  
amide, alkaloidal salts, ferric chloride, ferrous  
sulphate, mercuric chloride, phenacetin, pheno-  
coll hydrochlor., picric acid, potass. permang.,  
quinine, silver nitrate, solut. arsenic & mercury  
iodide, sod. salicyl., spt. nitrous ether, tannic  
acid.—*Caution:* Keep fr. air.

**Piperazine Quinal.**—see **Sidonal**

**Piperidine Merck** (50)

(Hexahydropyridine).—By heating piperine w.  
potash-lime.— $C_5H_{11}N$ , or,  $CH_2(CH_2)_4NH$ .—  
Colorl. liq.; odor of pepper & ammonia; caustic  
taste.—*Sp. Gr.* 0.875 at 15° C. —*Misc. W.*, A.—  
*Boil.* 107-110° C.

**Piperidine Bitartrate Merck** (50)

$C_5H_{10}NH \cdot C_4H_6O_6$ .—Colorl. cryst.—*Sol.* W.—  
*Uses*: Uric-acid solvent in uratic diathesis.—  
*Dose* 10-15 grains (0.6-1 Gm.) 3 t. p. d. in car-  
bonic-acid water.

**Piperidine Guaiacolate.**—see **Guajaperol**

**Piperidine Hydrochloride Merck** (50)

$C_5H_{10}NH \cdot HCl$ .—Wh. cryst.—*Sol.* W., A.—*Melt.*  
237° C.

**Piperine Merck** (10)

Alkaloid fr. fruit *Piper nigrum*, L. (Black Pep-  
per).— $C_{17}H_{19}NO_3$ , or,  $CH_3O_2 \cdot C_6H_4 \cdot CH : CH \cdot CH : CH \cdot CON \cdot C_5H_{10}$ .—Colorl. or pale-yellow, mono-  
cl. prisms; tasteless at first, w. burning after-taste.  
—*Sol.* 30 A.; E., C., B., & volat. oils; (15 A.,  
36 E., 1.7 C. at 25° C.; 4.4 A. at 60° C., U. S. P.).  
—*Melt.* 130° C.—Antipyr.; Antiper.—*Uses*:  
Substit. for quinine in remit. & intermit. fevers,  
& dyspep.—*Techn.*, for imparting a pungent  
taste to brandy.—*Doses*: As antipyr., 6-8 grains  
(0.36-0.5 Gm.); astomachic, 1 grain (0.06 Gm.)  
several t. p. d.

**Piperonal.** } —see **Heliotropin**

**Piperonyl Aldehyde.** }

**Piperonylphloroglucin dimethyl-ester.**—see **Proto-**  
**cotoin**

**Pipsissewa.**—see **Chimaphila**

**Piscidia**

(White Dogwood; Jamaica Dogwood).—Bark  
of *Piscidia Erythrina*, Jacquin (Ichthyomethia  
*Piscipula*, Kze). Papilionaceae.—*Habit.*: West  
Indies; Florida.—*Etymol.*: Fr. Lat. "piscis,"  
fish, & "cedere," to kill, i.e., a fish poison; &  
Grk. "erythros," red.—Quills or curved pieces  
2-4 in. (5-10 Cm.) long, 1-2 in. (25-50 Mm.)  
wide, &  $\frac{1}{8}$  in. (3 Mm.) thick; extern. dark gray-  
ish-brown to yellowish-brown; corky layer vivid  
orange; intern., bluish-green or brownish-green;  
inner surface dark-brown; opium-like odor when  
broken; bitter, acrid taste.—*Constit.*: Piscidin,  
 $C_{20}H_{12}O_8$ ; tannin; resin; caoutchouc; wax.—  
Nar.; Hypn.; Anod.; Sed.; Alter.; Diur.—*Uses*:  
Neural., toothache, dysmenor., whoop-cough,  
nerv. insomn.; also as fish poison.—*Doses*: 5-60  
grains (0.3-4 Gm.).—*Alcoh. extr.*, 2-8 grains

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



(0.12–0.5 Gm.).—Fld. extr., 15–60 ml (1–4 Cc.).  
—Tinet., 10–50 ml (0.6–3.3 Cc.).

*Pilayin*.—see **Quinidine**

**Pitch, Burgundy**

(Resin Burgundy).—Prepared resinous exudation of *Abies excelsa*, Poir., & o. species of *Abies*. *Coniferae*.—*Habit.*: France (Burgundy province).—Yellowish-brown, opaque or translucent, brittle masses, softened by heat; arom. terebinthinate odor; sweetish, not bitter, arom. taste.—*Sol.*, entirely in glac. acetic acid & in boil. A.; partly in cold A.—*Constit.*: Volat. oil; resin (chiefly abietic acid); pimaric acid.—*Stim.*; Irritant.—Used in plasters.

**Pittulen**

Condens. powd. pine-tar & formaldehyde.—Fine, brownish-yellow powd.; sl't odor.—*Sol.*, soluts. of alkalis, phenols; also in A.; acetone, collodion, & terpincol.—*Dermic*.—*Uses*: Acute, subacute, & chron. eczem., &c.—*Appl.* 2–10% oint., or as dust-powd.

**Pituitary Gland Merck.**—Dried, powder (200

(Hypophysis Cerebri).—Fr. pituitary glands of cattle.—1 part = abt. 6.5 parts fresh organ.—*Uses*: Acromegaly.—*Dose* 1½–5 grains (0.1–0.3 Gm.) several t. p. d.

*Pix Liquida*.—see **Tar**

*Plant Cascin*.—see **Legumin**

*Plant Fibrin*.—see **Fibrin, from Plants**

**Plantago**

(Plantain; Rib Grass; Ripple-grass; Ribwort).—Herb of *Plantago major*, L. *Plantaginaceae*.—*Habit.*: Europe; Asia; natur. in U.S.—*Etymol.*: Lat. "planta," sole, & "agere," to carry or bear, i.e., fr. the resemblance the leaves bear to the shape of the sole of a foot. "Major," large, great, i.e., the leaves are large.—*Constit.*: Bitter substance; tannin.—*Febri.*; *Stypt.*; Antispasmodic; Alter.; Diuret.; Antisept.; Antisyphilitic.; Antiscrofular.—*Uses*: *Extern.*, appl. in wounds, ulcers, eczema, erysipelas, & in ophthalmia; also in toothache.—*Dose*: Aqu. extr., 30–75 grains (2–5 Gm.).

*Plantago Psyllium*.—see **Psyllium**

*Plantain*.—see **Plantago**

*Plasma*.—see **Glycerite Starch**

*Plaster-of-Paris*.—see **Calcium Sulphate**

*Platinic or Platinous Salts*.—see under **Platinum**

**Platinum Merck.**—Foil or Wire (2750

*Etymol.*: Fr. the Spanish "platina," the diminutive of "plata," silver, because of the resemblance of the metal to silver (Antonio de Ulloa, 1736).—Metal.—Pt.—Wh., mall., ductile metal; softer than silver; grayish tinge.—*Sp. Gr.* 21.18–21.50.—*Sol.*, aqua regia.—*Uses*: Manuf. vessels & apparatus for scientific purposes, chemical &

industrial operations, alloys, coin, jewelry, &c. In wire form for spirals & tissues for increasing luminosity of various gases & pyrometers; in foil for platinoplatinizing copper, in electrolytic operations, thermocauteries, in dentistry, &c.

**Platinum Merck.**—Black (3600

(Platinum Mohr).—By reducing platinum solut. w. zinc, magnesium, &c.—Black powd.; metal-like & lustr. when rubbed.—*Sp. Gr.* 15.8–17.6.—*Uses*: As oxidizer in organic chemistry, as substitute for cupric oxide in elementary organic analysis, in manuf. acetic acid, &c.

**do. Merck.**—Sponges

Obt. by ignit. plat. & ammon. chloride.—*Uses*: Catalyzer in manuf. chemicals, autoigniter in Döbereiner lamps & gas jets, &c.

**do. Merck.**—Spongy (3600

(Spongy Platinum).—Fr. double chloride platinum & ammonium by heat.—Porous mass.—*Uses*: Döbereiner lamps, igniters for gas jets, &c.

**Platinum Merck.**—Reagent (3300

Pt.—Silver-white metal; used in form of foil or wire, & in v. fine subdivision as platinum sponge & platinum black.—*Tests*: (*Ites.*) diss. 1 Gm. metal in nitrohydrochloric acid, evap. solut. to dryness on W.-bath; convert res. of  $PtCl_4$  into plat. sponge by intense ignit.; treat sponge w. dil.  $HNO_3$  (sp. gr. 1.153); filter; evap. filtrate—not more than trace of res.—(*Ag*) diss. in nitrohydrochloric acid; evap. solut. on W.-bath; diss. res. in  $H_2O$ —no wh. res.—*Uses*: Prepar. plat. chloride, &c.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.**—Black.—Reagent (4400  
(Platinum Mohr).

*Platinum Bichloride*.—see **Platinum Chloride, Platinous**

**Platinum Chloride Merck.**—Platinic (1500

(Platinum & Hydrogen Chloride, Chloroplatinic Acid; Platini-chloride).— $PtCl_4 \cdot 2HCl + 6H_2O$ , or  $H_2PtCl_6 + 6H_2O$ .—Brown solid, or red cryst.—*Sol. W.*—*Uses*: Techn. in galvanoplatinoplatinizing, photogr., platinum mirrors, platinum luster on glass & porcelain, platinized carbon for acetic-acid manuf., platinizing pumice stone or asbestos (as catalyzer) in manuf. sulphuric anhydride, indelible ink, relief etching of zinc for artistic & commercial purposes, fixing microscopic preparations, &c.

**do. Merck.**—5% solution (55

**do. Merck.**—10% solution (100

**Platinum Chloride Merck.**—Reagent (1800

(Chloroplatinic Acid).— $PtCl_4 + 2HCl + 6H_2O$ —Brownish-red, cryst., v. hygrosc., saline mass.—*Sol. W., A., E.*—Aqu. solut. acid to litmus paper.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Tests* (Sol. in *H<sub>2</sub>O* 1; 1 Gm. + 10 Cc. *H<sub>2</sub>O*). A. should compl. diss. & give clear solut., also clear solut. w. *H<sub>2</sub>O*; yellow color, free fr. red or dark brown ring; absence of  $\text{PtCl}_2$  or  $\text{Ir}$ . — *Tests* (Liquor *Ammoniac* Res. for Impur. Sol. in *HNO<sub>3</sub>*). Strongly ignite 2 Gm. res. should weigh 0.752 Gm., above 1 res. w. dil. *HNO<sub>3</sub>* (5 Cc. *HNO<sub>3</sub>* [sp. gr. 1.153] + 20 Cc. *H<sub>2</sub>O*) on W.-bath 15 mm. filter; evap. filtrate on W.-bath, ignite — wt. of res. not more than 0.005 Gm. — (*H<sub>2</sub>SO<sub>4</sub>*) 1 Gm. + 20 Cc. *H<sub>2</sub>O* + solut.  $\text{BaCl}_2$  no ppt. ( $\text{BaSO}_4$ ) within 3 hrs. — (*HNO<sub>3</sub>*) 2 Cc. of 1:10 solut. + 2 Cc. conc. *H<sub>2</sub>SO<sub>4</sub>*; overlay w. 2 Cc. solut.  $\text{FeSO}_4$  no brownish zone even on long standing. — (*Ba*) 1 Gm. + 20 Cc. *H<sub>2</sub>O* + few drops *H<sub>2</sub>SO<sub>4</sub>* no ppt. ( $\text{BaSO}_4$ ) within 3 hrs. — *Uses*. Determin. potass. & ammon. salts; precip. alkaloids, catalytic agent.

*Note*. For complete tests see "Chemical Reagents. Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Platinum Chloride Merck.**—Platinous (2250 (Platinum Bi- or Dichloride, or Platinochloride). —By heating platine chloride to abt. 230° C. —  $\text{PtCl}_2$ .—Grayish-green to brown powd.—*Sol.*, hot hydrochl. acid; insol. W.

**Platinum Chloride Ammoniated Merck** (1750  $\text{PtCl}_2 \cdot 2\text{NH}_3$ .—Yellowish-green powd. — *Sol.*, ammonia water; v. sl. W.

**Platinum Cyanide Merck** (2350 (Platinous Cyanide).— $\text{Pt}(\text{CN})_2$ .—Yellow powd. —*Sol.*, in solut. alkali cyanides.

**Platinum Dichloride.**—see **Platinum Chloride, Platinous**

**Platinum Diiodide.**—see **Platinum Iodide**

**Platinum Iodide Merck** (1500 (Platinous Iodide; Platinum Diiodide, or Platinoiodide).— $\text{PtI}_2$ .—Heavy, black powd.—*Sol.*, sl. in hydriodic acid; insol. W. & alkalis.

**Platinum Mohr.**—see **Platinum, Black**

**Platinum Nitrate Merck** (1750 (Platinic Nitrate).— $\text{Pt}(\text{NO}_3)_4$ .—Brown powd., or black mass.—*Sol.* W.

**Platinum Sulphate Merck** (1800 (Platinic Sulphate).— $\text{Pt}(\text{SO}_4)_2$ .—Greenish-black, deliq. mass.—*Sol.* W.—*Uses*. Microchemical investigations for differentiating the haloids chlorine, bromine, & iodine.

**Platinum & Ammonium Chloride Merck.**—Platinic. —Cryst. (2000

(Platinic Chloride with Ammonium Chloride; Platinic Sal-ammoniac).— $\text{PtCl}_4 \cdot 2\text{NH}_4\text{Cl}$ , or,  $(\text{NH}_4)_2\text{PtCl}_6$ .—Orange-red cryst.—*Sol.* W.

do. Merck.—Dry, powder (1500 Yellow powd.—*Sol.* W.—Both salts used techn. in platinum plating.

**Platinum & Ammonium Chloride Merck.**—Platinous.—Cryst. (2000

(Platinous Chloride with Ammonium Chloride; Platinous Sal-ammoniac).— $\text{PtCl}_2 \cdot 2\text{NH}_4\text{Cl}$ , or,  $(\text{NH}_4)_2\text{PtCl}_4$ .—Dark, ruby-red cryst.—*Sol.* W.

**Platinum & Ammonium Cyanide Merck** (3000 (Ammonium Platinocyanide).— $\text{Pt}(\text{CN})_2 \cdot 2\text{NH}_4\text{CN} + \text{H}_2\text{O}$ , or,  $(\text{NH}_4)_2\text{Pt}(\text{CN})_4$ .—Yellow cryst.—*Sol.* W.

**Platinum & Ammonium Sulphocyanate.**—Platinic. —Cryst.

(Ammonium Sulphocyanoplatinate; Ammonium Platinisulphocyanide).— $\text{Pt}(\text{SCN})_2 \cdot 2\text{NH}_4(\text{SCN})$ , or,  $(\text{NH}_4)_2\text{Pt}(\text{SCN})_6$ .—Carmine-red cryst.—*Sol.*, sl. W.

**Platinum & Ammonium & Copper Cyanide**

(Ammonium Platinocyanide & Cupric Cyanide; Ammonio-platino-cupric Cyanide).— $\text{Pt}(\text{Cu}(\text{CN})_4)_2 \cdot 2\text{NH}_3 + \text{H}_2\text{O}$ .—Blue cryst.—*Sol.* W.

**Platinum & Barium Chloride Merck** (1500 (Barium Platinochloride).— $\text{PtCl}_2 \cdot \text{BaCl}_2 + 4\text{H}_2\text{O}$ , or,  $\text{PtBaCl}_4 + 4\text{H}_2\text{O}$ .—Orange-red cryst.—*Sol.*, sl. W.

**Platinum & Barium Cyanide Merck** (1650 (Barium Platinocyanide).— $\text{Pt}(\text{CN})_2 \cdot \text{Ba}(\text{CN})_2 + 4\text{H}_2\text{O}$ , or,  $\text{PtBa}(\text{CN})_4 + 4\text{H}_2\text{O}$ .—Large, dichroic cryst.; yellowish-green by transmitted light, & bluish-violet by reflected light.—*Sol.*, abt. 35 cold W.; eas. hot W.—Sp. Gr. 3.054 at 15° C. —An aqueous solut. mixed w. some adhesive, & painted on paper or wood exhibits phosphorescence when exposed to the invisible ultra-violet rays of the spectrum or to the Roentgen rays, hence the salt is used in radiography.

**Platinum & Barium Sulphocyanate.**—Cryst. (Barium Sulphocyanoplatinate; Barium Platinisulphocyanide).— $\text{Pt}(\text{SCN})_2 \cdot \text{Ba}(\text{SCN})_2$ , or,  $\text{PtBa}(\text{SCN})_6$ .—Red need.—*Sol.* W., A.

**Platinum & Calcium Chloride Merck** (1500 (Calcium Platinochloride).— $\text{CaCl}_2 \cdot \text{PtCl}_2 + 8\text{H}_2\text{O}$ , or,  $\text{PtCaCl}_4 + 8\text{H}_2\text{O}$ .—Orange-yel. cryst.—*Sol.* W.

**Platinum & Calcium Cyanide Merck** (1900 (Calcium Platinocyanide).— $\text{Pt}(\text{CN})_2 \cdot \text{Ca}(\text{CN})_2 + 5\text{H}_2\text{O}$ , or,  $\text{CaPt}(\text{CN})_4 + 5\text{H}_2\text{O}$ .—Greenish-yellow cryst.; bluish fluoresce.—*Sol.* W.

**Platinum & Calcium & Ammonium Cyanide** (Calcium and Ammonium Platinocyanide).— $\text{Pt}(\text{CN})_2 \cdot \text{Ca}(\text{CN})_2 \cdot 2\text{NH}_4\text{CN}$ , or,  $(\text{NH}_4)_2\text{Pt}(\text{Ca}(\text{CN})_6)$ .—Yellow cryst.; bluish reflect.—*Sol.* W.

**Platinum & Cerium Cyanide Merck** (1900 (Cerium Platinocyanide).— $\text{Ce}_2[\text{Pt}(\text{CN})_4]_3 + 18\text{H}_2\text{O}$ .—Yellow cryst.—*Sol.* W.

**Platinum & Copper Cyanide**

(Platinoenupric Cyanide; Copper Platinocyanide).— $\text{Pt}(\text{CN})_2 \cdot \text{Cu}(\text{CN})_2 + \text{aq.}$ , or,  $\text{PtCu}(\text{CN})_4 + \text{aq.}$ .—Green powd.—*Sol.*, sl. W.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Platinum & Hydrogen Chloride.**—see **Platinum Chloride, Platinic**

**Platinum & Iron Cyanide Merck** (4000  
(Ferroplatinous Cyanide; Iron Platinocyanide).  
— $\text{Fe}(\text{CN})_2 \cdot \text{Pt}(\text{CN})_2$ , or,  $\text{FePt}(\text{CN})_4$ .—Yellowish-  
red powd. —Insol. W.

**Platinum & Lead Cyanide Merck** (2300  
(Lead Platinocyanide).— $\text{Pb}(\text{CN})_2 \cdot \text{Pt}(\text{CN})_2$ , or,  
 $\text{PbPt}(\text{CN})_4$ .—Grayish-yellow, cryst. powd.

**Platinum & Lithium Chloride Merck** (1650  
(Lithium Platinic Chloride; Lithium Platinichloride).— $\text{Pt}(\text{Cl}_2 \cdot 2\text{LiCl} + 6\text{H}_2\text{O})$ , or,  $\text{Li}_2\text{Pt}(\text{Cl}_6 + 6\text{H}_2\text{O})$ .—Orange-yellow cryst.; effloresce in air.—*Sol.* W., A.

**Platinum & Lithium Cyanide Merck** (3000  
(Lithium Platinocyanide).— $\text{Pt}(\text{CN})_2 \cdot 2(\text{LiCN} + 3\text{H}_2\text{O})$ , or,  $\text{Li}_2\text{Pt}(\text{CN})_4 + 3\text{H}_2\text{O}$ .—Greenish-yellow  
cryst.—*Sol.*, sl. W.—*Uses*: Photography with  
Roentgen rays.

**Platinum & Lithium & Rubidium Cyanide**  
(Lithium & Rubidium Platinocyanide).— $\text{Pt}(\text{CN})_2 \cdot \text{Li}(\text{CN}) \cdot \text{Rb}(\text{CN}) + \text{aq.}$ , or,  $\text{PtLiRb}(\text{CN})_4 + \text{aq.}$ —Greenish-yellow, cryst. needles.—*Sol.* W.—  
More strongly fluorescent in Roentgen rays than  
platinum & barium cyanide, & hence used in-  
stead of latter in Roentgen-ray experiments.

**Platinum & Magnesium Cyanide Merck** (1750  
(Magnesium Platinocyanide).— $\text{Pt}(\text{CN})_2 \cdot \text{Mg}(\text{CN})_2 + 7\text{H}_2\text{O}$ , or,  $\text{MgPt}(\text{CN})_4 + 7\text{H}_2\text{O}$ .—Large,  
red, dichroic prisms, the sides showing beetle-  
green & the ends blue or purple.—*Sol.* W.

**Platinum & Potassium Bromide Merck** (1800  
(Potassium Bromoplatinate; Potassium Platinibromide).— $\text{PtBr}_2 \cdot 2\text{KBr}$ , or,  $\text{PtK}_2\text{Br}_6$ .—Brown-  
ish-red cryst.—*Sol.* W.

**Platinum & Potassium Chloride Merck.**—Platinic.  
—Cryst. or powder (1300  
(Potassium Chloroplatinate, or Platinichloride).  
— $\text{PtCl}_4 \cdot 2\text{KCl}$ , or,  $\text{PtK}_2\text{Cl}_6$ .—Sm., orange-yellow  
cryst., or yellow powd.—*Sol.*, hot W.

**Platinum & Potassium Chloride Merck.**—Plati-  
nous (400  
(Potassium Chloroplatinite or Platinochloride).  
— $\text{PtCl}_2 \cdot 2\text{KCl}$ , or,  $\text{PtK}_2\text{Cl}_4$ .—Ruby-red cryst.—  
*Sol.* W.—*Uses*: Photography (in acid toning  
baths).

**Platinum & Potassium Chlorocyanide Merck.**  
—Cryst. (2000  
(Potassium Chloroplatinicyanide).— $\text{Pt}(\text{CN})_4 \cdot 2\text{KCl} + 2\text{H}_2\text{O}$ . Large, rhomb., yellowish, v.  
efflorescent plates.—*Sol.* W., A.—*Caution*. Keep  
from air.

**Platinum & Potassium Cyanide Merck** (1900  
(Potassium Platinocyanide).— $\text{Pt}(\text{CN})_2 \cdot 2\text{KCN} + 3\text{H}_2\text{O}$ , or,  $\text{PtK}_2(\text{CN})_4 + 3\text{H}_2\text{O}$ .—Alm. colorl.,

rhombic prisms; blue in direction of principal  
axis.—*Sol.*, hot W.—*Uses*: Analysis.

**Platinum & Potassium Iodide Merck** (2000  
(Potassium Iodoplatinate, or Platinic Iodide).  
— $\text{PtK}_2\text{I}_6$ .—Black cryst.; graphite-like luster.—  
*Sol.* W.

**Platinum & Potassium Sesquicyanide Merck.**  
—Cryst. (1800  
(Potassium Platinicyanide).— $\text{Pt}(\text{CN})_3 \cdot 2\text{KCN} + 3\text{H}_2\text{O}$ , or,  $\text{K}_2\text{Pt}(\text{CN})_5 + 3\text{H}_2\text{O}$ .—Cryst., w. cop-  
pery luster.—*Sol.* W.

**Platinum & Potassium Sulphocyanate Merck.**  
—Cryst. (2000  
(Potassium Sulphocyanoplatinate, or Platinithiocyanate).— $\text{Pt}(\text{SCN})_4 \cdot 2\text{KSCN}$  or,  $\text{K}_2\text{Pt}(\text{SCN})_6$ .—Deep carmine-red cryst.—*Sol.* W.

**Platinum & Potassium & Lithium Cyanide Merck.**  
—Cryst. (2500  
(Potassium & Lithium Platinocyanide).— $\text{Pt}(\text{CN})_2 \cdot \text{K}(\text{CN}) \cdot \text{Li}(\text{CN})$ , or,  $\text{PtKLi}(\text{CN})_4$ .—Orange-  
red cryst.—*Sol.* W.

**Platinum & Potassium & Sodium Cyanide Merck.**  
—Cryst. (2250  
(Potassium & Sodium Platinocyanide).— $\text{Pt}(\text{CN})_2 \cdot \text{K}(\text{CN}) \cdot \text{Na}(\text{CN}) + 2\text{H}_2\text{O}$ , or,  $\text{PtKNa}(\text{CN})_4 + 2\text{H}_2\text{O}$ .—Yellow cryst., w. bluish reflect.—  
*Sol.* W.

**Platinum & Rubidium Cyanide Merck** (2100  
(Rubidium Platinocyanide).— $\text{Pt}(\text{CN})_2 \cdot 2\text{Rb}(\text{CN})$ , or,  $\text{PtRb}_2(\text{CN})_4$ .—Greenish-yellow, sl.  
fluoresc., monoc. prisms.—*Sol.* W.

**Platinum & Sodium Chloride Merck.**—Platinic.  
—Dry (1200  
(Sodium Platinichloride, or Chloroplatinate).—  
 $\text{PtCl}_2 \cdot 2\text{NaCl} + 4\text{H}_2\text{O}$ , or,  $\text{PtNa}_2\text{Cl}_6 + 4\text{H}_2\text{O}$ .—Yel-  
low powd.—*Sol.* W., A.

**Platinum & Sodium Chloride Merck.**—Platinous.  
—Cryst. (2200  
(Sodium Platinochloride, or Chloroplatinite).—  
 $\text{PtCl}_2 \cdot 2\text{NaCl} + 4\text{H}_2\text{O}$ , or,  $\text{Na}_2\text{PtCl}_4 + 4\text{H}_2\text{O}$ .—  
Dark-red cryst.—*Sol.*, eas. W.

**Platinum & Sodium Cyanide Merck** (2400  
(Sodium Platinocyanide).— $\text{Pt}(\text{CN})_2 \cdot 2\text{Na}(\text{CN}) + 3\text{H}_2\text{O}$ , or,  $\text{Na}_2\text{Pt}(\text{CN})_4 + 3\text{H}_2\text{O}$ .—Colorl. cryst.—  
*Sol.* W., A.

**Platinum & Strontium Cyanide Merck.**—Cryst.,  
with  $5\text{H}_2\text{O}$  (2100  
(Strontium Platinocyanide).— $\text{Pt}(\text{CN})_2 \cdot \text{Sr}(\text{CN})_2 + 5\text{H}_2\text{O}$ , or,  $\text{PtSr}(\text{CN})_4 + 5\text{H}_2\text{O}$ .—Wh. cryst., w.  
violet reflect.—*Sol.* W.

do. Merck. Cryst., with  $4\text{H}_2\text{O}$  (2100  
 $\text{Pt}(\text{CN})_2 \cdot \text{Sr}(\text{CN})_2 + \text{H}_2\text{O}$ , or,  $\text{PtSr}(\text{CN})_4 + 4\text{H}_2\text{O}$ .  
—Pale-violet, cryst. powd.—*Sol.* W.

**Platinum & Thorium Cyanide Merck** (2500  
(Thorium Platinocyanide).— $\text{Pt}(\text{CN})_2 \cdot \text{Th}(\text{CN})_2 + 16\text{H}_2\text{O}$ , or,  $\text{ThPt}(\text{CN})_4 + 16\text{H}_2\text{O}$ .—Yellow  
cryst.—*Sol.* W.—*Uses*: As of platinum & ba-  
rium cyanide for fluorescent screens.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potas-  
sium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sul-  
phate; 225=Aeonitine; 570=Gold Tribromide; 1111=Userine Sulphate; 1710=Hyoscyamine;  
2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Platinum & Yttrium Cyanide Merck** (3000  
Y.  $\text{Pt}(\text{CN})_4 + 2\text{H}_2\text{O}$ —Ruby-red cryst., w.  
green reflect. *Sol.* W.

**Platosammonium Sulphate Merck.** Cryst. (2000  
(Diplatosamine Sulphate).— $\text{Pt}(\text{NH}_4)_2\text{SO}_4$ .  
Wh., cryst. powd. *Sol.* in ammonia water w.  
formation of platosotetramine sulphate.

*Plessy's Green.*—see **Chromium Phosphate**

**Plugge's Reagent.** For gum ammoniac  
Solut. 3 Gm. sod. hydroxide, 2 Gm. bromine, &  
W., to 100 Cc. An alkaline, alcoholic extr.  
of ammoniac on being shaken w. the reagent affords  
a transitory violet color.

*Plumbago.*—see **Graphite**

*Plumbic Sulphite, Normal.*—see **Lead Sulphite**

*Plumbo-plumbic Oxide.*—see **Lead Oxide, Red**

*Plumbous Oxide.*—see **Lead Oxide, Yellow**

*Plumbous Sulphide.*—see **Lead Sulphide**

*Plumeria Fallax.*—see **Amapa-Milk**

**Plumiera**  
(Pagoda Tree; Sueumba Bark).—Bark of Plumiera  
(Plumeria) Sueumba, Spruce, Apocynaceae.—*Habit*: Brazil; Java.—*Etymol.*: Named  
for the French botanist, Chas. Plumier (1646–  
1706).—*Constit.*: Plumierid (agoniadin),  $\text{C}_{21}\text{H}_{26}\text{O}_{12} + \text{H}_2\text{O}$ ; plumieric acid,  $\text{C}_{20}\text{H}_{24}\text{O}_{12}$ (?).—*Febrif.*;  
Anthelm.; Emmen.

**Plumierid Merck** (500  
Crystalline glucoside fr. Plumiera acutifolia,  
Poiret.—Identical w. Peckolt's agoniadin.—  
 $\text{C}_{21}\text{H}_{26}\text{O}_{12} + \text{H}_2\text{O}$ . Wh., cryst. powd.; v. bitter  
taste.—*Sol.* W.—*Melt.* 155–158° C., after pre-  
vious sintering, & with evolution of gas.

**Pneumin** (20  
(Methyleneecroosote).—Condens. prod. of croso-  
sote & formaldehyde.—Yellowish, odorl., tasted.  
powd.—Antituberc.—*Dose* 8 grains (0.5 Gm.)  
4–8 t. p. d. in powd. or tabl.

*Podophyllin.*—see **Resin Podophyllum**

**Podophyllotoxin Merck** (120  
Active resin. princ. of podophyllum.— $\text{C}_{23}\text{H}_{24}\text{O}_9$   
+  $2\text{H}_2\text{O}$ .—Whitish-yellow powd.; v. bitter taste.  
—*Sol.* A.; part. E. & C.—Drastic Cathartic.—  
*Uses*: Purg. in severe constip.—*Dose*  $\frac{1}{12}$ – $\frac{1}{6}$   
grain (0.005–0.01 Gm.).—Hypoderm. inject. not  
advisable because of their painfulness.—*Max. D.*  
 $\frac{1}{6}$  grain (0.01 Gm.) p. d.

**Podophyllum.**—*U. S. P.*

(May Apple; Mandrake; Devil's Apple; Indian  
Apple; Vegetable Calomel).—Dried rhizome of  
Podophyllum peltatum, L. Berberidaceae.—  
*Habit.*: North America.—*Etymol.*: Grk. "pous,"  
foot, & "phyllon," leaf, i.e., the shape of the leaf  
is like that of a duck's foot. "Peltatum" has  
reference to the peltate leaf. "May apple," fr.

the fact that the plant blossoms in May, thus  
starting the fruit.—*Constit.*: Podophyllin, podop-  
hyllotoxin,  $\text{C}_{23}\text{H}_{24}\text{O}_9 + 2\text{H}_2\text{O}$ , pieropodophyllin;  
pieropodophyllinic acid, podophyllic acid,  $\text{C}_{15}\text{H}_{16}\text{O}_{17}$ ,  
podophylloresin.—*Purgat.* (in habitual  
constip.); Chologogue; Alter., Hydragogue  
Cathart.; Tonic.—*Uses*: Hepat. congest., con-  
stip., rheum., serofula, & bilious fevers.—*Doses*:  
5–15 grains (0.3–1 Gm.).—*Fld. extr.*, 8–30 M  
(0.5–2 Cc.).—Hydro-alcoh. extr., 1–3 grains  
(0.06–0.2 Gm.).

**Podophyllum Emodi**

Rhizome & roots of Podophyllum Emodi, Wal-  
lich. Berberidaceae. *Habit.*: Himalaya Moun-  
tains; Cashmere.—*Etymol.*: For "podophyllum"  
see preceding. "Emodi" fr. "emodin," the purg.  
prin. of rhubarb, which resembles that found  
in this plant.—*Constit.*: Podophyllin; berberin;  
resin; podophyllotoxin.—*Uses*: Drastic Purgat.

*Pogostemon.*—see **Patchouli**

**Poirrier Blue C 4 B Merck** (40  
Dye resembling Gentian Blue, used especially in  
microscopy, & as indicator in aqu. 0.2% solut.  
—The blue color of the solut. is changed to red  
by caustic alkalies.

*Poirrier's Orange 3 P.*—see **Methyl Orange**

*Poison Ivy.* } —see **Rhus Toxicodendron**  
*Poison Oak.* }

*Poke Root.*—see **Phytolacca**

**Pole Reagent Paper**

Unszed paper impregnated w. a solut. phenol-  
phthalein & sodium sulphate & dried.—*Uses*: For  
recognizing the negative poles of batteries, as  
the negative current colors the paper red.

*Polishing Powder.*—see **Tin Oxide, Stannic, Gray**

*Polka Paper.*—see **Lead-Carbonate Paper**

**Pollantion**

Hay-fever antitoxin prep. fr. pollen of golden-  
rod & o. plants.—*Appl.*, by instil. into eye, or  
insuffl. into nose.—Also marketed in powd.,  
prep. by evap. serum w. milk sugar in vacuo.

*Polychrome.*—see **Esculin**

*Polychromine.*—see **Primuline Yellow**

**Polygala**

(Bitter Milkwort; European Bitter Polygala).—  
Herb & root of Polygala amara, L. Polygala-  
ceae.—*Habit.*: Europe.—*Etymol.*: Grk. "polys,"  
much, & "gala," milk, i.e., referring to its sup-  
posed strong galactagogue properties. "Amara,"  
Lat. for bitter.—*Constit.*: Herb contains mucil-  
lage; resin.—*Root* contains bitter subst. (poly-  
galanin); volat. oil; polygalite.—*Uses*: Herb:  
Expector. (in pulmonary phthisis), Tonic, &  
Diaphor.—*Root*: Bitter Tonic (also used in tuber-  
culosis).—*Dose*: Herb: Aqu. extr., 3–10 grains  
(0.2–0.6 Gm.).

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Polygonatum**

(Solomon's Seal).—Rhizome of *Polygonatum officinale*, Allioni, Convallariaceae. Smilacaceae.—*Habit.*: Europe, Asia.—*Etymol.*: Grk. "polys," many, & "gone," knee, referring to the many-jointed rhizome.—*Constit.*: Convallarin; asparagus; pectin; sugar; starch; mucilage.—*Diuret.*; *Alter.*; *Cathart.*—*Uses*: Gout, rheumat., & skin dis.—*Dose*: Fld. extr., 5–20 ℥ (0.3–1.3 Ce.).

**Polygonum Aviculare**

(Knot-grass; Door-weed; Bird-weed; Cow-grass; Goose-grass).—Herb of *Polygonum aviculare*, L. Polygonaceae.—*Habit.*: Europe; Asia; North America.—*Etymol.*: See preceding.—*Constit.*: Mucilage; tannin.—*Diuret.*; *Antipodagr.*; *Antirheum.*; *Vulnerary.*—*Uses*: Formerly in pulmonary affect., under the name "Homeriana."

*Polygonum Bistorta*.—see **Bistort**

**Polygonum Hydropiper**

(Smartweed).—Lvs. of *Polygonum hydropiper*, L. Polygonaceae.—*Habit.*: Europe; natur. in U. S.—*Etymol.*: See *Polygonatum*. Grk. "hydor," water, & "peperi," pepper, referring to its growing in marshy ground, & to the biting taste of all parts of the plant.—*Constit.*: Polygonic acid; resin; wax; gum.—*Astring.*; *Emmen.*; *Aphrodis.*; *Diuret.*—*Uses*: Diar., funct. impot., amenor.—*Dose*: Fld. extr., 15–30 ℥ (1–2 Ce.).

**Polygonum Punctatum**

(Water Smartweed; Water Pepper).—Herb of *Polygonum punctatum*, Elliot, Polygonaceae.—*Habit.*: British America; U. S.—*Etymol.*: See *Polygonatum*. Lat. "punctatum" refers to the conspicuously punctate lvs.—*Diaphor.*; *Diuret.*; *Emmen.*; *Counter-Irrit.*—*Uses*: Intern., in amenor., fevers, & dyspep. affect.—Extern., in rheumat., gout, & neural.—*Dose*: Fld. extr., 15–30 ℥ (1–2 Ce.).

**Polymnia**

(Yellow Leaf Cup; Bear's Foot; Leaf-Cup; Uvedalia).—Root of *Polymnia uvedalia*, L. Compositae.—*Habit.*: Eastern U. S.—*Etymol.*: Fr. "Polymymnia," one of the Muses, for whom the plant was named.—*Constit.*: Resins; tannin.—*Alter.*; *Antiper.*; *Stim.*—*Uses*: Rheumat., serof., hepatic enlargem., tonsillitis, pleurisy, malar., splenic enlargem., &c.—*Dose*: Extr.,  $\frac{1}{2}$ –3 grains (0.03–0.2 Gm.).—Fld. extr., 3–20 ℥ (0.2–1.3 Ce.).

*Polypodium*.—see **Calaguala**

**Polypody**

(Polypodium; Fern Root).—Rhizome of *Polypodium vulgare*, L. Polypodiaceae.—*Habit.*: Europe; northern Asia; North America.—*Etymol.*: Grk. "polys," many, & "pous," foot, referring to the numerous rootstocks.—*Constit.*: Volat. oil; resin; tannin, glycyrrhizin; mannite; dextrose; malic acid.—*Diuret.* (in liver affections & gout); *Demule.*; *Purgat.*; *Anthelmint.*—*Dose* 1–4 dr. (4–15 Gm.).

**Polyporus**

(Oak Agaric; Surgeon's Agaric; Spunk; Punk; Touchwood; Tinder; Amadou).—The fungus *Polyporus fomentarius*, Fries, Hymenomycetes.—*Habit.*: Southern & Central Europe.—*Etymol.*: Fr. Grk. "polys," many, & "poros," holes, i. e., the fungus is very spongy. "Fomentarius," Lat., adapted for fomentations.—Hoof-shaped, obliquely triangular, sessile fungus found on oak & beech trees, freed fr. its hard rind & hymenial, tubular spores, cut into slices, & washed & cleaned until soft & pliable.—*Uses*: Local Hemostatic; Absorbent.

**Polytrichum**

(Golden Maidenhair; Bear Moss; Golden Moss; Herba Adianti Auri).—*Polytrichum commune*, L. Bryoideae, Musci.—*Habit.*: Europe; U. S.—*Etymol.*: Fr. Grk. "polys," many, & "thrix," hair. "Adiantum," fr. Grk. "a," not, without, & "diainein," to make wet, i. e., the plant is not easily made wet.—*Constit.*: Fat; tannin; resin.—*Astring.*; *Diaphor.*; *Tonic.*—*Uses*: Scrofula, bronchial catarrh, & profuse menstruation.

*Pomegranate*.—see **Granatum**

*Pomona Green*.—see **Iodine Green**

*Ponceau*.—see **Biebrich Scarlet**; **Scarlet Red**

**Ponceau Red R Merck**

(8)

(Sodium Xylidinazobetanaphtholdisulphonate).—Brownish-red powd.—*Sol.* W.—*Uses*: Dyeing wool, & manuf. lakes.

**Poplar Buds**

Buds of *Populus nigra*, L. Salicaceae.—*Habit.*: Europe.—*Etymol.*: Fr. Grk. "paipallomai," to tremble, because of the constant trembling of the leaves.—*Constit.*: Volat. oil; salicin; populin; chrysin.—*Antinephritic.*; *Antirheumat.* (intern. as tinct., & extern. as oint. or linim.); *Expector.*; *Antisept.*; *Tonic.*; *Discutient.*—*Uses*: Intern., bronchitis, nephritis, intest. catarrh.—*Extern.* in rheumat.—*Dose*: Alcoh. extr., 3–10 grains (0.2–0.6 Gm.).

*Poppy*.—see **Papaver**

**Populin Merck**

(1500)

(Benzoylsalicin).—Glucoside fr. bark & lvs. of *Populus nigra* & *P. tremula*.— $C_{21}H_{22}O_8 + 2H_2O$ , or  $C_{13}H_{11}(C_6H_5CO)O_2 + 2H_2O$ .—Wh. powd.; bitter, then sweetish taste, like licorice.—*Sol.*, hot A., acetic acid, dil. mineral acids; v. sl. W.—*Melt.* 180° C.—*Antipyretic.*—*Uses*: Fever.—*Dose* 2–4 grains (0.12–0.25 Gm.).

*Populus Nigra*.—see **Poplar Buds**

**Prophyryne Merck**

(3500)

Alkaloid fr. bark *Alstonia constricta*, F. Muell. (Australian fever bark).— $C_{21}H_{25}N_3O_8$ .—Wh., amorph. subst.; acid solut's fluoresce blue.—*Sol.*, hot W., A., E.—*Melt.* 97° C.—*Antipyretic.*

*Potash, Caustic*.—see **Potassium Hyd oxide**

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Potash, Prussian, Red.*—see Potassium Ferricyanide

*Potash, Prussian, Yellow.*—see Potassium Ferrocyanide

*Potash.*—see Potassium Hydroxide

*Potash-Lime.*—see Potassium Hydroxide with Lime

**Potassa Sulphurated Merck** (1)  
(Liver of Sulphur, so-called "Potassium Sulphide", Hepar Sulphuris).—Fr. potass. carbonate w. sublimed sulphur, by fusion. Mixt. containing potassium trisulphide & potass. thiosulphate. Yellowish brown lumps, faint hydrogen-sulphide odor, alkaline, bitter taste.—*Sol.* 2 W. at 15° C.—*Alter.*: Antacid; Emetic; Local Irritant.—*Uses*. Intern., sm. doses: increase frequency of puls.; large doses: rheum., gout, scrof., painters' colic, skin dis., catarrh, croup, & lead & mercury poisoning.—*Extern.*, lotion in parasitic skin dis.—For baths in skin affect, 1½, 3½ ounces (50-100 Gm.) to one bath.—*Dose* 2-10 grains (0.12-0.6 Gm.).—*Antid.*, emetics, stomach-siphon, lead or zinc acetate, brandy.—*Incomp.*, acids, alcohol, carbonated waters, acid salts. Even carbon dioxide precip. sulphur fr. solut.—*Caut.* Avoid metal bath-tubs, metal spoons & water w. much carbon dioxide.

**do. Merck.—Pure** (2)  
Fr. purified potass. carbonate & sulphur.

*Potassio- & Ammonio-ferric Tartrate.*—see Iron & Potassium Tartrate with Ammonium Tartrate

**Potassium Merck** (28)  
*Etymol.*: "Potassium" fr. "potash," the alkali first obtained fr. "pot ashes." The Lat. "kalium" fr. the Arabic "kaljan," ash; or perhaps fr. Hebrew "kal," light.—First isolated in metallic form by Davy in 1807.—Metal.—K.—Sm. balls, of consistence of wax; fresh cut surface has silvery luster, rapidly passing to bluish or gray.—*Melt.* 58° C.—*Uses*: Chem.—*Caut.* Keep covered with B., benzin, or o. liquid free fr. oxygen.

**Potassium Acetate Merck.—Highest Purity** (1)  
 $KC_2H_3O_2$ .—Wh., cryst., hygrosc. powd.; saline taste.—*Sol.* 0.1 W., 2 A. at 25° C., U. S. P.—*Melt.* 292° C.—*Diur.*; *Aper.*; *Cath.*—*Uses*: Gout, lithiasis, rheum., dropsy, ecz., & psoria.—*Techn.*, as dehydrating agent.—*Dose* 10-60 grains (0.6-4 Gm.).—*Caut.* Keep well stoppered.

**do. Merck.—Pure** (1)

**do. Merck.—Pure, fused** (2)

**do.—50% Solution** (1)

Clear, colorl. liq.—*Sp. Gr.* 1.20.—*Diur.*; *Diaph.*; *Antipy.*; *Cath.*—*Uses*: Cystitis, fevers, dropsy, rheum., skin dis., & in the uric acid diathesis to render urine alkaline.—*Dose* 30-120 m (2-1 Ce.).

**Potassium Acetate. 33% Solution** (1)  
Colorl. liq.—*Sp. Gr.* 1.176-1.18.—*Dose* 45-180 m (3-12 Ce.).

**Potassium Acetate Merck. Reagent.—33% Solution** (1)

Clear, colorl., neutr. or at most sltly acid liq.; 33%  $KC_2H_3O_2$ .—*Sp. Gr.* 1.176-1.18.—*Tests*. (Cl) 5 Ce. + 20 Ce.  $H_2O$  + 5 Ce.  $HNO_3$  (sp. gr. 1.153) (+solut.  $AgNO_3$ )—at most only slt opalesc. turb.—( $H_2SO_4$ ) 10 Ce. + 10 Ce.  $H_2O$ —5 Ce.  $HCl$  + solut.  $BaCl_2$ —no turb.—(*Heavy Met.*) a 15 Ce. + 15 Ce.  $H_2O$  + aqu.  $H_2S$ —no ppt. or coloration; b: 5 Ce. + 20 Ce.  $H_2O$  + 1 Ce.  $HCl$ —solut.  $KSCN$ —no red color.—(Ca) 10 Ce. + 10 Ce.  $H_2O$ —solut.  $(NH_4)_2C_2O_4$ —no ppt. within 3 hrs.—*Uses*: Chiefly detect. tartaric acid.

*Note*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Acetotungstate Merck** (6)  
(Potassium Acetowolframate).—Double salt prep. fr. potass. tungstate & potass. acetate.—Wh., lustr. cryst.—*Sol. W.*—*Uses*: Photography.

*Potassium Alum.*—see Aluminum & Potassium Sulphate

**Potassium Amylsulphate Merck** (6)  
(Potassium Isoamylsulphate).— $2KC_2H_5SO_4 + H_2O$ .—Warty, wh. cryst.—*Sol. W.*; sl. A.

*Potassium Anhydrosulphate.*—see Potassium Pyrosulphate

**Potassium Anthranilate Merck** (250)  
(Potassium Orthoaminobenzoate).— $KC_7H_6NO_2$ , or,  $C_7H_5NH_2COOK$ .—Wh. to gray, cryst. powd.—*Sol. W.*

**Potassium Antimonate Merck** (2)  
(Acid Potassium Metantimonate or "Pyroantimonate").— $K_3H_2Sb_2O_7 + 6H_2O$ .—Gran., wh. cryst. powd.—*Sol.*, sl. cold W.; more eas. (1:90) hot W.

**do. Merck.—Pure** (2)

(Diaphoretic Antimony; "White Oxide of Antimony").—Mixt. neutral & acid potass. antimonates w. antimony antimonate & oxide.—Wh. powd.—Diaphoretic.—*Uses*: Hemorrhage of lungs, pneum., & puerperal fever.—*Dose* 8-25 grains (0.5-1.6 Gm.).

**Potassium Antimonate Merck.—Reagent** (3)

(Acid Potassium Pyroantimonate).— $H_2K_2Sb_2O_7 + 4H_2O$ .—Gran., cryst., wh. powd.—*Sol.* 250 cold W.; 90 boil. W.—*Tests*: 1 Gm. + 100 Ce. boil.  $H_2O$ —solut. neutral to litmus paper.—20 Ce. of 1% aqu. solut. + solut. 1 Gm.  $KCl$  in 10 Ce.  $H_2O$ —no ppt. within 15 min.—20 Ce. 1% aqu. solut. + solut. 1 Gm.  $NH_4Cl$  in 10 Ce.  $H_2O$  + 2-3 drops  $NH_4OH$  (sp. gr. 0.96)—no ppt. within 15 min.—*Uses*: Detect. Na.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by

When ordering from your supply house articles which bear the designation Merck (see Preface, p. v)

**Specify MERCK'S** on your orders

because MERCK'S products are the STANDARD and COST NO MORE



D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Arsenate Merck.—Pure, cryst.** (2)

$\text{KH}_2\text{AsO}_4$ .—Colorl. cryst.—*Sol.* W.—Antiper.; Alter.—*Uses:* Skin dis. & malaria.—*Dose*  $\frac{1}{20}$ – $\frac{1}{10}$  grain (0.003–0.006 Gm.).—*Max. D.*  $\frac{1}{10}$  grain (0.006 Gm.), single;  $\frac{1}{3}$  grain (0.02 Gm.), p. day.—*Antid.*: As of arsenic trioxide.—*Caut.* Keep dry. Very poisonous!

**do. Merck.—Crude** (1)

*Uses:* Techn., for fly-paper.

**Potassium Arsenite Merck.—Pure** (2)

$\text{KAsO}_2 + \text{H}_3\text{AsO}_3$ .—Whitish-gray to wh. powd.—*Sol.* W.—*Uses:* As of the arsenate.—*Techn.*, as reducer for silver in manuf. of mirrors.—*Dose*  $\frac{1}{30}$ – $\frac{1}{15}$  grain (0.002–0.004 Gm.).—*Antid.*, as of arsenic trioxide.

**do. Merck.—Crude** (1)

Gray powd.—*Sol.* W.—*Uses:* Techn.

**Potassium Aurobromide.—see Gold & Potassium Bromide**

**Potassium Aurochloride.—see Gold & Potassium Chloride**

**Potassium Benzenedisulphonate Merck** (25)

$\text{C}_6\text{H}_4(\text{SO}_3\text{K})_2$ .—Thin, wh. plates.—*Sol.* W.

**Potassium Benzoate Merck** (3)

$\text{KC}_6\text{H}_5\text{O}_2 + 3\text{H}_2\text{O}$ .—Wh., cryst. powd.—*Sol.* W., A.—*Uses:* As of sodium benzoate.—*Dose* 5–20 grains (0.3–1.3 Gm.).—*Caut.* Keep fr. air.

**Potassium Biboate.—see Potassium Borate**

**Potassium Bicarbonate Merck.—Highest Purity, Medicinal, cryst. or powd.** (1)

(Acid Potassium Carbonate).—Fr. solut. potass. carbonate, by carbonic acid.— $\text{KHCO}_3$ .—Colorl., transp. or transl. cryst., or wh. powd.; sl'y alk., saline taste.—*Sol.*, abt. 3 W. at 25° C.; 1.9 W. at 50° C.; alm. insol. A. (U. S. P.).—Diur.; Antilithic; Antacid.—*Uses:* Dyspep., dropsy, lithiasis, sour stom., jaund., &c. Us'y taken effervesce. w. tartaric or citric acid.—*Techn.*, for making potass. carbonate of highest purity.—*Dose* 10–60 grains (0.6–4 Gm.).

**do. Merck.—Pure, cryst., gran., or powd.** (1)

**Potassium Bicarbonate Merck.—Reagent** (2)

$\text{KHCO}_3$ .—Colorl., transp., rhomb. prisms or plates.—*Sol.* 4 W.—*Tests:* ( $\text{H}_2\text{SO}_4$ ) 3 Gm. + 50 Ce.  $\text{H}_2\text{O}$  + 6 Ce.  $\text{HCl}$  (sp. gr. 1.124); boil sev. min.; add solut.  $\text{BaCl}_2$ —no ppt. ( $\text{BaSO}_4$ ) within 12 hrs.—(C) 3 Gm. + 50 Ce.  $\text{H}_2\text{O}$  + 10 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + solut.  $\text{AgNO}_3$ —at most sl. opalesce.—( $\text{HNO}_3$ ) 3 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 10 Ce. dil.  $\text{H}_2\text{SO}_4$  + 1 drop 1:1000 indigo solut. + 10 Ce. conc.  $\text{H}_2\text{SO}_4$ —blue color should not disappear.—(S) 5 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 15 Ce.  $\text{HCl}$  (sp. gr. 1.124); evap. on W.-bath in platin. dish; dry res.  $\frac{1}{2}$  hr. at 120° C. & diss. in 3 Ce.  $\text{HCl}$  (sp. gr. 1.124) + 25 Ce.  $\text{H}_2\text{O}$ —solut. perf. clear.—(Ca; Al;

Heavy Met.) 5 Gm. + 25 Ce.  $\text{H}_2\text{O}$  + 15 Ce. dil.  $\text{C}_2\text{H}_3\text{O}_2$  + 5 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96); heat  $\frac{1}{2}$  hr. on W.-bath—no flocks or ppt. Add solut. ( $\text{NH}_4$ )<sub>2</sub> $\text{C}_2\text{O}_4$  + ( $\text{NH}_4$ )HS—no react.—( $\text{H}_3\text{PO}_4$ ) 5 Gm. + 50 Ce.  $\text{H}_2\text{O}$  + 50 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + 25 Ce. solut. ammon. molybd.; heat to 30–40° C.—no yellow ppt. within 2 hrs.—(Fe) 1 Gm. + 3 Ce.  $\text{HCl}$  (sp. gr. 1.124) + 10 Ce.  $\text{H}_2\text{O}$  + solut.  $\text{KSCN}$ —no red color.—(Res.) ignite 100 parts—wt. of res. 69 parts.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Bichromate.—see Potassium Dichromate**

**Potassium Bifluoride Merck** (2)

(Acid Potassium Fluoride).— $\text{KF.HF}$ .—Colorl. cryst.—*Sol.* W.—*Uses:* Antisep. in brewing.

**Potassium Biniodate Merck.—Cryst.** (25)

(Acid Potassium Iodate).— $\text{KH}_2\text{IO}_6$ , or,  $\text{KIO}_3 \cdot \text{HIO}_3$ .—Small, white, lustrous cryst.—*Sol.*, v. dil. acids.

**Potassium Biniodate Merck.—Reagent** (35)

$\text{KIO}_3 \cdot \text{HIO}_3$ .—Sm., wh. cryst.—*Sol.* 20 cold W.—*Uses:* Replaces iodine in volumetric soluts.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Binoxalate Merck** (1)

(Acid Potassium Oxalate; Sal Acetosella; Salt of Sorrel; Essential Salt of Lemons).— $\text{KH}_2\text{C}_2\text{O}_4 + \text{H}_2\text{O}$ .—Wh., monoc. prisms.—*Sol.* W.—*Uses:* Intern., as of oxalic acid.—*Techn.*, removing ink stains, scour metals, clean wood, & in photo. Somet. in dil. solut. as drink.—*Dose*  $\frac{1}{4}$ – $1\frac{1}{2}$  grains (0.008–0.1 Gm.).—*Max. D.* 5 grains (0.3 Gm.) single; 10 grains (0.6 Gm.) p. d.—*Caut.* Keep dry.

**Potassium Biphosphate.—see Potassium Phosphate, Monobasic**

**Potassium Bisaccharate Merck** (75)

$(\text{COOH})_2\text{C}_4\text{H}_4(\text{OH})_4(\text{COOK})_2$ .—Yellowish-wh. cryst.—*Sol.*, abt. 100 W.

**Potassium Bisulphate Merck.—Highest Purity, Medicinal, cryst.** (1)

(Acid Potassium Sulphate; Potassium Hydrogen Sulphate).— $\text{KHSO}_4$ .—Colorl. cryst.—*Sol.* W.—Aper.; Tonic.—*Uses:* Constip. w. weak appetite; give w. equal wt. sod. carbonate.—*Extern.*, w. acetates for smelling salts.—*Dose* 60–120 grains (4–8 Gm.).

**do. Merck.—Highest Purity, Medicinal, fused** (1)

Wh., deliq. plates.—*Caut.* Keep fr. air.

**do. Merck.—Pure, cryst.** (1)

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Potassium Bisulphate Merck.** Pure, fused (1)  
Wh, deliq. plate.—*Uses:* W. sol. bicarbonate for baths.

**do. Merck** (1)  
(Sal Enixum; Potash Salt Cake).

**Potassium Bisulphate Merck.**—Reagent (2)  
 $\text{KHSO}_4$ .—Colorl. cryst. *Sol.* 2 W.—*Tests:* (*Heavy Met.*) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + aq.  $\text{H}_2\text{S}$  no react.; add sl. excess  $\text{NH}_4\text{OH}$  + ( $\text{NH}_4$ )  $\text{HS}$  no react.—(*Cl*) 20 Ce. 1-20 aq. solut. + solut.  $\text{AgNO}_3$  no turb.—(*I*) 1 Gm. finely powd. + 3 Ce. solut.  $\text{SnCl}_2$  no dark color within 1 hr.—*Uses:* Flux, &c.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Bisulphite.**—Highest Purity, Medicinal (2)

(Acid Potassium, or Potassium Hydrogen, Sulphite).— $\text{KHSO}_3$ .—Wh., cryst. powd.—*Sol.* W.—Antiseptic.—*Uses:* Techn. as sulphurous acid in brewing.—*Dose* 5-30 grains (0.3-2 Gm.).

**Potassium Bisulphite Merck.**—Reagent (2)

$\text{KHSO}_3$ .—Wh., cryst. powd.; odor of  $\text{SO}_2$ .—*Sol.*, eas. W.—*Tests:* (*Heavy Met.*; *As*) 5 Gm. + 5 Ce. conc.  $\text{H}_2\text{SO}_4$  (sp. gr. 1.81); evap. to dryness on sand-bath; diss. res. in 20 Ce.  $\text{H}_2\text{O}$ ; *a*: to 10 Ce. of this solut. add aq.  $\text{H}_2\text{S}$  no react.; *b*: to 10 Ce. solut. add solut. ammon. molybd. in  $\text{HNO}_3$ , & heat to 70-80° C. no yellow color or ppt.—*Uses:* Reducer; also determ. aldehydes.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Bitartrate Merck.**—Highest Purity, Medicinal, cryst., or powd. (2)

(Acid Potassium Tartrate; Cream of Tartar).— $\text{KHC}_4\text{H}_4\text{O}_6$ .—Colorl., or sl'y opaque, cryst. or wh. powd.; pleas. acid. taste.—*Sol.* 200 W. at 25° C.; solut. of borax or boric acid; 16.7 boil. W.; v. spar. A.—*Cath.*; *Diur.*; *Aper.*—*Uses:* Dropsy, & as refrigerant drink in febrile affect.—*Dose*  $\frac{1}{2}$ -8 drams (2-30 Gm.).

**do.**—Pure, powder (1)

Wh., cryst. powd.—*Uses* & *Dose:* As preceding.

**Potassium Bitartrate Merck.**—Reagent (6)

$\text{KHC}_4\text{H}_4\text{O}_6$ .—Wh., cryst. powd.—*Sol.* 192 cold W., 20 boil. W.; solut.  $\text{NaOH}$  &  $\text{K}_2\text{CO}_3$ ; insol. A.—*Tests:* ( $\text{H}_2\text{O}$ ) dry 5 Gm. at 100° C. no loss of wt.—(*Cl*) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 5 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + solut.  $\text{AgNO}_3$  at most sl. opalesc.—( $\text{H}_2\text{SO}_4$ ) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 5 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + solut.  $\text{BaCl}_2$  no ppt. within 12 hrs.—(*Ca*) 1 Gm. + 5 Ce. dil.  $\text{C}_2\text{H}_3\text{O}_2$  + 25 Ce.  $\text{H}_2\text{O}$ ; heat; allow to cool; filter; add to filtrate few drops solut.  $(\text{NH}_4)_2\text{C}_2\text{O}_4$  no turb. within 10 min.—( $\text{NH}_4$  Compounds) heat 2 Gm. w. 10 Ce.

solut.  $\text{NaOH}$  no  $\text{NH}_3$  vapors evolve. (test. w. litmus paper.—(*Heavy Met.*) 1 Gm. + 25 Ce.  $\text{H}_2\text{O}$  + 25 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96) aq.  $\text{H}_2\text{S}$  no react.—*Uses:* Starting material for prepar. volumetric soluts. of the alkalis.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Borate Merck** (3)

Potassium Baborate, Tetraborate, or Pyroborate.— $\text{K}_2\text{B}_4\text{O}_7 \cdot 5\text{H}_2\text{O}$ .—Wh. powd., alkal. taste.—*Sol.* W.

**Potassium Borotartrate Merck** (4)

Equal parts of potassium metaborate & potassium bitartrate.—Wh., cryst. powd.—*Sol.* sl. in W.—Antiseptic.—*Uses:* Photo. as addition to alkaline developers as retarder; has also been used to adulterate Spanish saffron.

**Potassium Bromate Merck.**—Pure (5)

$\text{KBrO}_3$ .—Wh., cryst. powd.—*Sol.*, hot W.

**Potassium Bromate Merck.**—Reagent (7)

$\text{KBrO}_3$ .—Colorl. cryst., or cryst. powd.—*Sol.* 15 cold, 2 boil., W.—*Test:* ( $\text{KBr}$ ) 2 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 5 Ce. dil.  $\text{H}_2\text{SO}_4$  no immed. yellow color.—*Uses:* Determ. phenol. & sulphurous, hydrosulphuric, & oxalic acids.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Bromide Merck.**—Cryst., gran., & powd. (1)

$\text{KBr}$ .—Wh., gran. powd., or medium-sized cryst.; pung., saline taste.—*Sol.*, abt. 1.5 W., 180 A., at 25° C.; less than 1 boil. W.; 16 boil. A. (U. S. P.).—*Melt.*, abt. 700° C.—Antiepileptic; Sed.; Hypn.—*Uses:* Epilepsy, neurasth., convuls., delir. trem., tetanus, strychnine poison., syph., scrof., semi-impotence, nymphomania, urethral fever, iodoform poison.—*Dose* 20-60 grains (1.3-4 Gm.), increased to 120 grains (8 Gm.) p. d., in solution. In tetanus or strychnine poison. up to  $\frac{1}{2}$  oz. (15 Gm.).

*Note.*—The uniformly high purity of this bromide indicates the desirability of prescribing & dispensing only of this grade.

**do.**—Effervescent.—*N. F.*

11% potass. bromide.—Wh., gran. powd.; effervesce. with W.—*Uses:* Soporific & pleasant drink in headache.—*Dose* 60-120 grains (4-8 Gm.).

**Potassium Bromide Merck.**—Reagent (2)

$\text{KBr}$ .—Wh., cubic, lustr. cryst.; perman. in air.—*Sol.* 2 W.; abt. 200 A.—*Tests:* ( $\text{K}_2\text{CO}_3$ ) aq. 1:20 solut. neutral; should not turn red litmus paper blue; should not be redd. by 1 drop solut. phenolphthalein.—( $\text{KBrO}_3$ ) spread some powd.  $\text{KBr}$  on wh. porcelain, & add few drops dil.  $\text{H}_2\text{SO}_4$  no immed. yellow color.—(*Heavy Met.*;  $\text{K}_2\text{SO}_4$ ;

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Ba Salts*) treat 20 Cc. ea. 1:20 aqu. solut. v.; *a*: aqu.  $\text{H}_2\text{S}$ —no react.; *b*: solut.  $\text{Ba}(\text{NO}_3)_2$ —no react.; *c*: dil.  $\text{H}_2\text{SO}_4$ —no react.—(*Iodide*) 20 Cc. 1:20 solut.+2-3 drops solut.  $\text{FeCl}_3$ +5 Cc. chlorof.; shake—chlorof. should not acquire violet color.—(*Excess of KCl*) dry at  $100^\circ\text{C}$ .; diss. 3 Gm. in 100 Cc.  $\text{H}_2\text{O}$ ; to 10 Cc. of solut. add few drops solut.  $\text{K}_2\text{CrF}_4$ +decinorm.  $\text{AgNO}_3$ —not more than 25.4 Cc. silver solut. should be required to develop perman. redness.—*Uses*: Determin. phenol.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### Potassium Bromide with Caffeine.—Effervescent. —N. F.

11% potass. bromide, & 1.1% caffeine.—Wh., gran. powd.; effervesc. with W.—Sedative.—*Uses*: Headache, insom., nervoun., &c.—*Dose* 90 grains (6 Gm.), in W.

### Potassium Bromoarsenite Merck (35

Mixture of potassium bromide & arsenic bromide, in molecular prop.—Wh. to gray-wh. powd.—*Sol.* W.

### Potassium Bromoplatinate.—see Platinum & Potassium Bromide

### Potassium Bromortho-oxybenzoate.—see Potassium Bromosalicylate

### Potassium Bromosalicylate Merck (150

(Potassium Bromortho-oxybenzoate).— $\text{KC}_7\text{H}_4\text{BrO}_2$  or  $\text{C}_6\text{H}_3\text{Br}(\text{OH})\text{COOK}$ .—Wh., cryst. powd.—*Sol.* W.—Antirheumat.; Hypn.—*Uses*: Rheumatism & neuralgia.

### Potassium Butylsulphate (Iso-) Merck (10

$\text{KC}_4\text{H}_9\text{SO}_4$ .—Wh. mass.—*Sol.* W.

### Potassium Butyrate Merck (12

$\text{KC}_4\text{H}_7\text{O}_2$ .—V. deliq., wh., cryst. powd.—*Sol.* W.—*Caut.* Keep well stoppered.

### Potassium Butyrate (Iso-) Merck (25

$\text{KC}_4\text{H}_7\text{O}_2$ .—Deliq., wh., cryst. powd.—*Sol.* W.—*Caut.* Keep fr. air.

### Potassium Cacodylate Merck (15

$\text{K}(\text{CH}_3)_2\text{AsO}_2$ +aq.—Wh. cryst.—*Sol.*, sl. A.

### Potassium Camphorate Merck.—Cryst. (35

$\text{K}_2\text{C}_{10}\text{H}_{16}\text{O}_4$ .—Wh., deliq. cryst.—*Sol.* W.—Antiseptic.—*Uses*: Night sw. of phth., bronch., cyst., pyelitis, gonorr., sore throat, ulc. mouth, &c.—*Dose* 10-30 grains (0.6-2 Gm.).—*Caut.* Keep dry & fr. air.

### Potassium Cantharidate Merck (1500

$\text{K}_2\text{C}_{10}\text{H}_{16}\text{O}_4$ + $2\text{H}_2\text{O}$ .—White amorph. powd.—*Sol.* W.—*Uses*: Hypoderm., in v. attenuated solut. (0.6:1000) for tuberculosis (Liebreich).—*Dose* of solut., 3-6 M (0.2-0.36 Cc.) hypoderm.

### Potassium Carbolate.—see Potassium Phenate

### Potassium Carbonate Merck.—Highest Purity (1

$\text{K}_2\text{CO}_3$ .—Wh., deliq., gran. powd.—*Sol.* 0.91 W. at  $25^\circ\text{C}$ .; 0.65 boil. W.; insol. A.—*Melt.*, bright red heat.—*Antacid*; *Solv.*—*Uses*: Intern., acid stom., lithiasis, dropsy, jaundice.—*Extern.*, as 15% oint., or 1% aqu. solut. as bath in cutan. affect.—*Dose* 10-30 grains (0.6-2 Gm.) several t. p. d.—*Antid.*, emetics, acids, fixed oils.—*Caut.* Keep well stoppered.

### do. Merck.—Pure (1

### do. Merck (1

(Crude Potassium Carbonate; Pearlash; the purified salt is known as "Salts of Tartar").—Fr. ash of plants, & espec. of beet-root.— $\text{K}_2\text{CO}_3$ .—Wh., deliq., gran. powd.—*Sol.*, in eq. wt. W.—*Uses*: Techn., in dyeing, bleaching, & in manuf. of soap, glass, smalts, potass. cyanide, potass. ferrocyanide, & other potass. salts.

### Potassium Carbonate Merck.—Reagent (2

$\text{K}_2\text{CO}_3$ .—Wh., gran., hygrosc. powd.; alkali. react.—*Sol.* 1 W.; insol. absol. A.—At least 99%  $\text{K}_2\text{CO}_3$ .—*Tests*: (*Heavy Met.*) 20 Cc. aqu. 1:20 solut. both w. & without  $\text{HCl}$ +aqu.  $\text{H}_2\text{S}$ —no react.—(*Cl*) 1 Gm.+20 Cc.  $\text{H}_2\text{O}$ + $\text{HNO}_3$ +solut.  $\text{AgNO}_3$ —at most sl. opalesc.—( $\text{H}_2\text{SO}_4$ ) 20 Cc. 1:20 solut.+ $\text{HCl}$ ; boil; add solut.  $\text{BaCl}_2$ —no ppt. ( $\text{BaSO}_4$ ) within 12 hrs.—( $\text{HNO}_3$ ) 0.2 Gm.+2 Cc. dil.  $\text{H}_2\text{SO}_4$ +2 Cc. conc.  $\text{H}_2\text{SO}_4$ ; cool; overlay w. 1 Cc. solut.  $\text{FeSO}_4$ —no reddish-brown zone.—(*KCN*) 5 Cc. 1:20 solut.+solut. 0.5 Gm.  $\text{FeSO}_4$  in 5 Cc.  $\text{H}_2\text{O}$ +1-2 drops solut.  $\text{FeCl}_3$ ; heat to  $60-70^\circ\text{C}$ .; add  $\text{HCl}$ —no green color or blue ppt.—(*Sulphide*;  $\text{SO}_2$ ; *Thiosulphate*) pour 1 Cc. 1:20 solut. into 10 Cc. decinorm.  $\text{AgNO}_3$ —yellowish-wh. ppt., which should not darken to gray, brown, or black, on heat, to  $68-70^\circ\text{C}$ .—( $\text{H}_4\text{P}_2\text{O}_7$ ) 5 Gm.+50 Cc.  $\text{H}_2\text{O}$ +50 Cc.  $\text{HNO}_3$  (sp. gr. 1.153)+25 Cc. solut. ammon. molybd.—no yellow ppt. on stand. 2 hrs. at abt.  $40^\circ\text{C}$ .—(*Si*) 5 Gm.+20 Cc.  $\text{HCl}$  (sp. gr. 1.124)+20 Cc.  $\text{H}_2\text{O}$ ; evap. in platin. dish to dryness; dry res.  $\frac{1}{2}$  hr. at  $120^\circ\text{C}$ .; diss. in 3 Cc.  $\text{HCl}$  (sp. gr. 1.124)+25 Cc.  $\text{H}_2\text{O}$ —solut. perf. clear.—(*Al*; *Ca*) 5 Gm.+25 Cc. dil.  $\text{C}_2\text{H}_4\text{O}_2$  (sp. gr. 1.041)+12 Cc.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96); heat  $\frac{1}{2}$  hr. on W.-bath—no flocks or ppt. should form; add solut.  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ —no react.—*Uses*: Chiefly as flux.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### do. Merck.—Reagent.—Solution (1

Clear, colorl., alkali. liq.; abt. 33%  $\text{K}_2\text{CO}_3$ .—Sp. Gr. 1.330-1.334.—*Tests*: As of preceding, using, however, 3 Cc. solut. instead of 1 Gm.  $\text{K}_2\text{CO}_3$ .—*Uses*: Prepar. solut. potass. acetate; iodometric determ. arsenous acid.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. These reagents conform to the standard therein given.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

## Potassium Chlorate.—Highest Purity, cryst. or powder (1)

$KClO_3$ .—Transp. cryst., in prisms or plates, or wh. powd. cooling sublimates. *Sol* 16.7 W, at 15° C.; 16 W at 25° C.; 17 boil. W. *d* sol. dil. V (mol. abs.) A, U, S, P. —*Melt* 334° C., decomp. above 352° C. —*Appearance*. —*Uses*. —*Intern.*, all forms of stomatitis, diphth., mercurial, & dis. of muc. membr. —*Extern.*, astring. solut., w. lanthanum, per. enema, for painful hemorrhoids, 3–5<sup>ss</sup>, aqu. solut. in mouth-washes & gargles in stomatitis, angina, tonsillitis, aphthae, &c.; powder on ulc. & badly healing wound. It should never be given on an empty stomach. —*Dose*, 10–20 grains (0.6–1.3 Gm.) in lozenge, tablets, or chalk mixt. —*Max.*, 12–20 grains (1.3 Gm.) p. d. for children 1 yr. old; 30 grains (2 Gm.) p. d. for children 2–3 yrs. old; 90–120 grains (6–8 Gm.) p. d. for adults. —*Interp.*, iron iodide, tartaric acid. —*Antid.*, diuretics, ice, opium, pilocarpine, alkali carbonates, prolonged baths, caffeine-sodium benzoate hypodermically, salt transfusions, analeptics. —*Caution*. Do not triturate w. sulphur, phosphorus, or organic or combustible compounds. Inflames or explodes w. sulphuric acid & any organic powder. —Keep carefully, in dry place.

do. Merck. —Pure, granulated (1)

do. Merck. Cryst. or powder (1)

(Potassium Oxymuriate). —*Uses*: As a source of oxygen; pyrotech.; matches; printing fabrics, &c.

## Potassium Chlorate Merck.—Reagent (2)

$KClO_3$ .—Colorl., lustr., tabul. cryst. —*Sol.*, 16 cold, 2 boil. W.; 130 A. (85%); insol. absol. A., E. —*Tests*: *Earthly Alkalies*; *Cl* 20 Ce. ca. 1:20 solut. + *a*: solut. ( $NH_4Cl$ ) *b*: solut.  $AgNO_3$  —no react. in either case. —(*Heavy Met.*) 3 Gm. + 30 Ce. warm  $H_2O$  —solut., perf. clear; add aqu.  $H_2S$  —no react. —( $HNO_3$ ) 1 Gm. + 5 Ce. solut.  $NaOH$  (sp. gr. 1.3) + 0.5 Gm. Zn dust + 0.5 Gm. powd. Fe; heat —no  $NH_3$  evolve. (test w. moist litmus paper). —( $H_2SO_4$ ) 20 Ce. 1:20 solut. + solut.  $BaCl_2$  —no ppt. ( $BaSO_4$ ) within 12 hrs. —(As) 20 Gm. + 100 Ce.  $HCl$  (sp. gr. 1.124) in capacious porcel. dish; when evol.  $Cl$  slackens, evap. on W.-bath to dryness; diss. res. in 50 Ce.  $H_2O$ , & introduce solut. in sm. quant. into Marsh appar. started w. 20 Gm. As-free gran. Zn & dil. (1:5)  $H_2SO_4$  —no As deposit should be visible in reduct. tube within 2 hrs. —*Uses*: Forensic & ultimate analysis; oxidizer; determ. sulphur.

*Note*. —For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## Potassium Chloride Merck.—Highest Purity (1)

$KCl$ . —Wh., cubical cryst.; saline taste. —*Sol.* W. —*Uses*: Chem.

do. —Crude (1)

*Uses*: Techn.

## Potassium Chloride Merck.—Reagent (2)

$KCl$ . —Colorl., cubic cryst., or wh. cryst. powd. —*Sol.* 3 cold W., more solub. boil. W.; insol. absol. A., E. —*Aqu.* solut. neutral. —*Tests* (*Heavy Met.*; *Alkalies*; *Earth*) 3 Gm. + 50 Ce.  $H_2O$  + *a*: solut. ( $NH_4Cl$ ) *b*: solut.  $Na_2CO_3$ ; or *c*: solut. ( $NH_4HS$ ) —no react. in any case. —( $H_2SO_4$ ) 20 Ce. 1:20 solut. + solut.  $BaCl_2$  —no ppt. within 12 hrs. —*Uses*: Determ.  $H_2SiF_6$ .

*Note*. —For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## Potassium Chloride.—see Iridium & Potassium Chloride

## Potassium Chlorochromate Merck (3)

$K_2CrO_4$ . —Red cryst.; evolve chlorine w. heat. —*Sol.* W., with decomp. —*Uses*: Oxidizer. —*Incomp.* W.

## Potassium Chloroplatinate.—see Platinum & Potassium Chloride, Platinic

## Potassium Chloroplatinicyanide.—see Platinum & Potassium Chlorocyanide

## Potassium Chloroplatinite.—see Platinum & Potassium Chloride, Platinous

## Potassium Chromate Merck.—Highest Purity (1)

(Neutral, or Yellow, Potassium Chromate). — $K_2CrO_4$ . —Yellow cryst. —*Sol.* W. —*Uses*: *Medic.*, rarely as antisyphilitic. —*Max.*, 1/2 grain (0.03 Gm.) single; 1 grain (0.06 Gm.) p. d.

do. Merck (1)

*Uses*: Techn., in dyeing, manuf. inks, &c.

## Potassium Chromate Merck.—Reagent (2)

$K_2CrO_4$ . —Yellow, rhomb. cryst.; perman. in air. —*Sol.*, 2 cold W.; insol. A. —1:20 aqu. solut. sl'tly alkali. to litmus paper. —*Tests*: (*Free Alkali*) 0.1 Gm. + 25 Ce.  $H_2O$  + few drops solut. phenolphthalein —no red color. —( $H_2SO_4$ ) 3 Gm. + 100 Ce.  $H_2O$  + 30 Ce.  $HCl$  (sp. gr. 1.124) + solut.  $BaCl_2$  —no ppt. within 12 hrs. —(*Cl*) 1 Gm. + 20 Ce.  $H_2O$  + 10 Ce.  $HNO_3$  (sp. gr. 1.153); heat to abt. 50° C.; add solut.  $AgNO_3$  —no turb. or ppt. within 5 min. —(*Al*; *Alkaline Earths*) 2 Gm. + 30 Ce.  $H_2O$  + 5 Ce.  $NH_4OH$  (sp. gr. 0.96) + solut. ( $NH_4$ )<sub>2</sub> $C_2O_4$  —no ppt. within 12 hrs. —*Uses*: Detect. Pb, Hg, Ag, Ba; indicator & determ. Ba & Pb.

*Note*. —For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## Potassium Cinnamate Merck (20)

(Potassium Cinnamate). — $KC_9H_7O_2$ . —Wh., cryst. powd.; str. aromatic odor. —*Sol.* W.

## Potassium Citrate Merck.—Highest Purity, Medicinal (1)

(Tribasic Potassium Citrate). — $K_3C_6H_5O_7 + H_2O$ . —Colorl. cryst., or wh., deliq. powd.; cooling,

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



saline taste.—*Sol.* 0.6 W. at 15° C.; sl in A. (0.5 W. at 25° C.; v. sol. boil. W., U. S. P.).—*Begin*s to decomp. at 230° C.—*Diaph.*; *Refrigerant*.—*Uses:* Rheum., lithiasis, fevers, bronch. affect., &c.—*Dose* 20–25 grains (1.3–1.6 Gm.).—*Max. D.* 8 dr. (30 Gm.) p. day

**Potassium Citrate Merck.—Pure (1)**  
do.—Effervescent.—*U. S. P.*

Mixt. potass. citrate, citric & tartaric acids, & sod. bicarbonate.—*Wh. powd.*—*Sol.* W., with effervesce.—*Refrigerant*; *Diaph.*—*Uses:* Agre. drink in fevers, rheum., lithiasis, bronch., &c.—*Dose* 30–90 grains (2–6 Gm.).

**Potassium Citrate Merck.—Monobasic (5)**  
(Monopotassium Citrate).— $\text{KC}_6\text{H}_7\text{O}_7$ .—*Wh.*, *cryst. powd.*—*Sol.* W.

**Potassium Cobaltcyanide.—see Cobalt & Potassium Cyanide**

**Potassium Cobaltnitrite.—see Cobalt & Potassium Nitrite**

**Potassium Cobaltosulphate.—see Cobalt & Potassium Sulphate**

**Potassium Cyanate Merck.—Pure (11)**  
 $\text{KCNO}$ .—*Sm.*, *wh.*, *odorl. cryst.*—*Sol.* W.

**Potassium Cyanurate.—see Gold & Potassium Cyanide**

**Potassium Cyanide Merck.—Highest Purity (5)**  
 $\text{KCN}$ .—*Wh.*, *amorph.*, *deliq. pieces*; odor of hydrocyanic acid.—*Sol.* 2 W. at 25° C.; 1 boil. W. w. decomp.; sl in A.—*Melt.*, at low red heat.—*Sed.*; *Antispasmod.*; *Anod.*—*Uses:* *Intern.*, dyspnea, asthma, phth., catarrh, whoop-cough, &c.—*Extern.*, 0.2–0.8% aqu. solut. in neural. & local pains; 0.6–1.2% aqu. solut., removes silver-nitrate stains fr. conjunctiva.—*Dose*  $\frac{1}{8}$  grain (0.008 Gm.).—*Max. D.*  $\frac{1}{3}$  grain (0.02 Gm.) p. d.—*Antid.*, chlorine water, solution chlorinated soda; hydrogen peroxide hypoderm.; ammonia; 10 grains iron sulphate with 1 dram tincture iron in 1 oz. water; cobalt nitrate, cold affusions, emetics, artificial respiration, freshly precipitated ferric hydroxide with sod. carbonate.—*Incomp.*, acids & acid syrups; alkaloids, hydrated chloral; iodine; lead, mercurous, & silver salts, permanganates, potass. chlorate or nitrate.—*Caut.* Keep well stoppered.

do. Merck.—98–100% pure (1)

do. Merck.—Gran., abt. 60% (1)

do. Merck.—Fused, 30%, 40%, & 60% (1)

**Potassium Cyanide Merck.—Reagent (12)**  
 $\text{KCN}$ .—*Wh. powd.*; 96–98%  $\text{KCN}$ .—*Sol.* 2 W.—*Aqu. solut.* neutral to litmus paper.—*Tests:* ( $\text{K}_2\text{S}$ ) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + solut.  $\text{Pb}(\text{C}_2\text{H}_3\text{O}_2)_2$ —*pure wh. ppt.*—( $\text{K}_2\text{CO}_3$ ;  $\text{KSCN}$ ;  $\text{K}_4\text{Fe}[\text{C}_2\text{O}_4]_6$ ) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 5 Ce.  $\text{HCl}$  (sp. gr. 1.124) v. *cautiously*—only sl't effervesce; add 1 drop solut.  $\text{FeCl}_3$ —no red or blue color.—( $\text{K}_2\text{SO}_4$ ) 20 Ce.

1:20 solut. + 5 Ce.  $\text{HCl}$  (sp. gr. 1.124) + solut.  $\text{BaCl}_2$ —no react.—*Uses:* Reducer in determ. Sb, Sn, As, Ni, Zn, Co, Cu; in electrolysis.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Dichromate Merck.—Highest Purity, cryst. & powd. (1)**

(Potassium Bichromate; Acid or Red Potassium Chromate).— $\text{K}_2\text{Cr}_2\text{O}_7$ .—Large, orange-red, transl. cryst.; bitter, metal. taste.—*Sol.* 10 W. at 15° C.; (abt. 9 W. at 25° C.; 1.5 boil. W.; insol. A., U. S. P.).—*Corros.*; *Astring.*; *Alter.*—*Uses:* *Intern.*, syph.—*Extern.*, sweat, feet, tuberc. elevations, syph. veget., & warts; also to harden anatomical specimens.—*Dose*  $\frac{1}{12}$ – $\frac{1}{6}$ – $\frac{1}{3}$  grain (0.005–0.01–0.02 Gm.); 5% solut. for sweat, feet; 10% solut., caustic.—*Antid.*, emetics & stomach siphon, followed by soap, magnesia, or alkali carbonates; calcium saccharate.

do. Merck.—Highest Purity, fused (2)  
Dark-red tablets.

do. Merck.—Commercial, cryst. or powd. (1)  
Orange-red cryst.—*Sol.* 10 W.—*Uses:* Techn., in tanning, electrotechn., dyeing, painting, printing, painting on porcelain, heliography, photolithography, pigment process in photography, Albert-type; bleaching palm oil, wax, sponges; removing fusel oil fr. alcohol; waterproofing fabrics, purifying pyroligneous acid, &c.—*Antid.*, as above.

do. Merck.—Caustic pencils

Dark-red pencils.—*Uses:* Cauterize superabundant gran., diphth. & syph. patches.

**Potassium Dichromate Merck.—Reagent (2)**

$\text{K}_2\text{Cr}_2\text{O}_7$ .—Dark yellowish-red, triclinic prisms or plates.—*Sol.* 10 cold, & abt. 1.5 boil. W.; insol. A.—*Aqu. solut.* reddens blue litmus paper.—*Tests:* ( $\text{H}_2\text{SO}_4$ ) 3 Gm. + 100 Ce.  $\text{H}_2\text{O}$  + 30 Ce.  $\text{HCl}$  (sp. gr. 1.124) + solut.  $\text{BaCl}_2$ —no ppt. within 12 hrs.—( $\text{Cl}$ ) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 10 Ce.  $\text{HNO}_3$  (sp. gr. 1.153); heat to abt. 50° C.; add few drops solut.  $\text{AgNO}_3$ —no turb. or ppt. within 5 min.—(*Al*; *Alkaline Earths*) 2 Gm. + 30 Ce.  $\text{H}_2\text{O}$  + 10 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96) + solut.  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ —no ppt. within 12 hrs.—*Uses:* Detect. aniline, cantharidin, alkaloids, phenol, strychnine, & salicylic, tartaric & citric acids; determ. N, H, S, Br, U, Cu, Bi, alcohol, & aldehydes.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Diiodopara-phenolsulphonate.—see Sozoiodole-Potassium**

**Potassium Diiodoresorcinolmonosulphonate.—see Picrol**

**Potassium Dinitroaminophen(olate).—see Potassium Picramine**

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Potassium Dithionate.*—see **Potassium Hyposulphate**

*Potassium Ethyldithiocarbonate.*—see **Potassium Xanthogenate**

**Potassium Ethylsulphate Merck** (3)  
(Potassium Sulphomate).— $\text{KC}_2\text{H}_5\text{SO}_4$ .—Colorl. cryst.—*Sol.* W., A.—*Caut.* Keep dry.

*Potassium Ethylxanthogenate.*—see **Potassium Xanthogenate**

**Potassium Ferricyanide Merck.**—Pure, cryst. or powder (2)  
(Potassium Ferrideyanide; Red Prussiate of Potash).— $\text{K}_3\text{Fe}(\text{CN})_6$ .—Large, red prisms, or red powd.—*Sol.* W.—*Uses:* Chem. & techn.—*Caut.* Keep dry & fr. light.

**do. Merck** (1)

*Uses:* Techn., in dyeing wool, calico printing, etching liquid (Mercer's Liquor), heliography, temper. iron & steel, brown mordant for wool, &c.

**Potassium Ferricyanide Merck.—Reagent** (4)  
 $\text{K}_3\text{Fe}(\text{CN})_6$ .—Ruby-red, lustr. cryst.—*Sol.* 2.5 cold, 1.5 boil., W.—*Tests:* (*Ferrous Salts*) wash off superficial layer w. W., then prepare 3% solut., & add few drops dil. solut.  $\text{FeCl}_3$ —no blue color. ( $\text{H}_2\text{SO}_4$ ) 20 Ce. 1:20 solut., + 1 Ce.  $\text{HCl}$  (sp. gr. 1.124) + solut.  $\text{BaCl}_2$ —no ppt. within 12 hrs.—(*Cl*) 0.5 Gm. + 1 Gm.  $\text{KNO}_3$ ; deflagrate in sm. quant. in porcel. cruc. heated to redness; maintain mass in fusion a few min., allow to cool, & treat w. 20 Ce.  $\text{H}_2\text{O}$ ; filter; to filtrate add 0.5 Gm.  $\text{KNO}_3$  & evap. to dryness; fuse res. in porcel. cruc., cool, & diss. in 20 Ce.  $\text{H}_2\text{O}$  + 3 Ce.  $\text{HNO}_3$  (sp. gr. 1.153); add solut.  $\text{AgNO}_3$ —at most only sl't opalesc.—*Uses:* Detect. ferrous salts,  $\text{H}_2\text{O}_2$ , morphine; estim. saccharose, dextrose, & metals.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Ferrocyanide Merck.—Pure** (1)  
(Yellow Prussiate of Potash).— $\text{K}_4\text{Fe}(\text{CN})_6 + 3\text{H}_2\text{O}$ .—Lemon-yellow, monocl., tabular cryst. or prisms; mild, saline taste; effloresc. on expos.—*Sol.* 4 W. at 15° C.; (4 W. at 25° C.; 2 boil. W.; insol. A., U. S. P.).—*Sed.*; Astring.—*Uses:* Night-sw. of phth. Also techn.—*Dose* 10–15 grains (0.6–1 Gm.).

**do. Merck** (1)

Transl., or yellow, flat cryst.—Source, formula, solubility, &c., as in preceding.—*Uses:* Techn., dyeing, tempering iron, &c.

**Potassium Ferrocyanide Merck.—Reagent** (3)  
 $\text{K}_4\text{Fe}(\text{CN})_6 + 3\text{H}_2\text{O}$ .—Lemon yellow, tabular cryst.; fairly perman.—*Sol.* 4 cold, 2 boil. W.; insol. A.—*Tests:* ( $\text{K}_2\text{CO}_3$ ) 1 Gm. + dil.  $\text{H}_2\text{SO}_4$ —no evol. of gas.—( $\text{H}_2\text{SO}_4$ ) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 1 Ce.  $\text{HCl}$  (sp. gr. 1.124) + solut.  $\text{BaCl}_2$ —no immed. turb.—(*Cl*) 0.5 Gm. + 1 Gm.  $\text{KNO}_3$ ;

deflagrate in sm. quant. in porcel. cruc. heated to redness; treat res. w. 20 Ce.  $\text{H}_2\text{O}$ ; filter; to filtrate add 3 Ce.  $\text{H}_2\text{NO}_3$  (sp. gr. 1.153) + solut.  $\text{AgNO}_3$ —at most only sl't opalesc.—*Uses:* Detect. Fe, Cu, & heavy metals, determin. Zn, strychnine, &c., in reagents for albumen, free acids.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

*Potassium Ferrocyanide-Citric Acid Paper.*—see **Citro-Potassium Ferrocyanide Paper**

**Potassium Ferrocyanide with Urea Merck** (6)  
Mixt. of urea & potassium ferrocyanide.—Greenish-wh., cryst. powd.—Abt. 20% urea.—*Sol.* W.

**Potassium Filicate Merck** (750)  
 $\text{KC}_{11}\text{H}_{15}\text{O}_5$ .—Light-brown, cryst. powd.—*Sol.* W.

**Potassium Fluoresceinate Merck** (35)  
Potass. salt of fluorescein.— $\text{K}_2\text{C}_{20}\text{H}_{10}\text{O}_5$ .—Yellowish-red powd.—*Sol.* W.—*Uses:* To detect corneal defects. See **Fluorescein**.

**Potassium Fluoride Merck.—Pure** (2)  
 $\text{KF} + 2\text{H}_2\text{O}$ .—Wh., cryst., deliq. powd.; sharp, saline taste; free fr. arsenic.—*Sol.* W.—*Uses:* Brewing, as preservative, for etching glass, &c.—*Caut.* Keep fr. air.

**do. Merck.**—Purified, free fr. Arsenic (1)  
 $\text{KF} + 2\text{H}_2\text{O}$ .—Wh., deliq., cryst. powd.—*Sol.*, abt. equal part W.—*Uses:* Techn.

*Potassium Fluoride, Acid.*—see **Potassium Bifluoride**

**Potassium Formate Merck** (5)  
 $\text{KCHO}_2$ .—Colorl., deliq., cryst. mass.—*Sol.* W.—*Caut.* Keep well stoppered.

**Potassium Glycerate Merck** (175)  
 $\text{KC}_3\text{H}_5\text{O}_4$ .—Wh., deliq. powd.—*Sol.* W.

**Potassium Glycerinophosphate Merck.—75% (5)**  
Aq. solut.,  $\text{C}_3\text{H}_7\text{O}_3\text{PO}(\text{OK})_2$ .—Colorl. to yellowish liq.—*Misc.* W. all proport.—*Nerve Tonic.*—*Uses:* Deficient nerve nutrition, neurasthenia, Addison's disease, phosphaturia, convalesce. fr. influenza, &c.—*Inj.* 4–5 ml (0.25–0.3 Ce.) daily in physiological salt solut.

**do. Merck.** 50% & 100% (5 & 10)

*Potassium Guaiacolsulphonate.*—see **Thiocol**

**Potassium Hippurate Merck** (35)  
 $\text{KC}_9\text{H}_8\text{NO}_3 + \text{H}_2\text{O}$ .—Wh., cryst. powd.—*Sol.* A.; boil. W.

*Potassium Hydrosulphide.*—see **Potassium Sulphydrate**

**Potassium Hydroxide Merck.—Highest Purity** (4)  
(Potassium Hydrate; Caustic Potash; Potassa).— $\text{KOH} + \text{aq.}$ —Wh., deliq. pieces. Abs. free fr. alumina, silica, & sulphuric acid. Absorbs carbon diox. fr. air.—*Sol.* W., A.—*Uses:* Chemical.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Potassium Hydroxide Merck.—Pure (Purified by Alcohol), sticks, lumps, & drops** (1)

Wh. sticks; cryst. fracture.—*Sol.* 0.4 W. at 25° C.; 2 A.; eas. boil. W. & boil. A.; sl. E., (U. S. P.).—*Escarotic*; *Antacid*; *Diur.*—*Uses:* *Intern.*, gout, lithiasis, gonorr., cystitis, acid dyspep., & cutan. affect.—*Extern.*, caustic to destroy warts, gangr. tissue, &c.—*Dose*  $\frac{1}{4}$ –1 grain (0.015–0.06 Gm.), h'yly dil. with W.—*Antid.*, vinegar, lemon juice, orange juice, oil, milk; opium if pain, & stim. in depression; ice-water enemias in bloody diar.—*Caut.* Keep well stoppered.

**do. Merck.—Purified, sticks, lumps, drops, & powd.** (1)

Sticks.—*Uses:* Techn., in soap manuf., mordant for wood, manuf. oxalic acid, bleaching, absorbing gaseous  $\text{CO}_2$ , &c.

**do.—Solution** (1)

5% potass. hydroxide in W.—Clear, colorl. liq.; acid, caustic taste; alk. react.—*Sp. Gr.*, abt. 1.036 at 15° C.; (1.046 at 25° C., U. S. P.).—*Sol.* W.—*Antilithic*; *Diuret.*; *Antacid*.—*Uses:* *Intern.*, urethritis, cystitis, calculi, scrof., skin dis.—*Extern.*, stimulating lotion in arthritic swellings. Also chem.—*Dose* 10–30 m (0.6–2 Ce.).—*Antid.*, mild acids & oils.—*Incomp.*, fats, organic matter, amm. salts.—*Caut.* Keep in rubber- or paraffin-stoppered bottles.

**Potassium Hydroxide Merck. — Reagent. — Purest** (5)

KOH. —Wh. pieces; cryst. structure on fracture; 82–85% KOH.—*Tests:* ( $\text{H}_2\text{SO}_4$ ) 3 Gm. + 50 Ce.  $\text{H}_2\text{O}$  + 10 Ce. HCl (sp. gr. 1.124); heat to boil; add solut.  $\text{BaCl}_2$ —no ppt. within 12 hrs.—(Cl) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 5 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + few drops solut.  $\text{AgNO}_3$ —at most sl't opalesc. turb. within 1 min.—( $\text{HNO}_3$ ) a: 2 Gm. + 10 Ce.  $\text{H}_2\text{O}$  + 10 Ce. dil.  $\text{H}_2\text{SO}_4$  (sp. gr. 1.11) + 1 drop 1:1000 solut. indigo + a granule  $\text{NaCl}$  + 10 Ce. conc.  $\text{H}_2\text{SO}_4$ —blue color should not disapp. within 10 min.; b: 25 Gm. + 100 Ce.  $\text{H}_2\text{O}$ ; add 5 Gm. Zn-dust & 5 Gm. powd. Fe; let stand a few hours, then distil; collect abt. 25 Ce. distillate in U-tube cont. 3–5 Ce. fifthnorm. HCl + 10 Ce.  $\text{H}_2\text{O}$ ; titrate w. fifthnorm. KOH (methyl orange indic.)—at most 0.2 Ce. fifthnorm. HCl should be required to neutralize the  $\text{NH}_3$ .—( $\text{H}_3\text{PO}_4$ ) 5 Gm. + 50 Ce.  $\text{H}_2\text{O}$  + 50 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + 25 Ce. solut. ammon. molybd. in  $\text{HNO}_3$ —no yellow ppt. within 2 hrs. at abt. 40° C.—(Si) 5 Gm. + 25 Ce.  $\text{H}_2\text{O}$  + 25 Ce. HCl (sp. gr. 1.124); evap. in platin. dish on W.-bath to dryness; dry res.  $\frac{1}{2}$  hr. on sand-bath at abt. 120° C.; diss. in 10 Ce. HCl (sp. gr. 1.124) + 90 Ce.  $\text{H}_2\text{O}$ ; filter; ignite res.—wt. of res. should not exceed 0.0005 Gm.—(Al; Ca; Heavy Met.) 5 Gm. + 10 Ce.  $\text{H}_2\text{O}$ —solut. clear; add 25 Ce. dil.  $\text{C}_2\text{H}_5\text{O}_2$  (sp. gr. 1.041) + 10 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96) + 5 Ce.  $\text{H}_2\text{O}$ ; heat on W.-bath till  $\text{NH}_3$  dissipated; add 2–3 drop  $\text{NH}_4\text{OH}$  & let stand 12 hrs.—no ppt.; if ppt. forms, collect, wash, & ignite—its weight should not exceed 0.0005 Gm. Test

filtrate as follows: a: to 50 Ce. add few Ce. solut.  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ —no react.; b: to 50 Ce. add few drops  $(\text{NH}_4)\text{HS}$ —no react.—(*Impur. Insol. in A* [ $\text{K}_2\text{CO}_3$  & o. K Salts]) 5 Gm. + 25 Ce. 85% A.; warm—perf. clear & colorl. solut.—*Uses:* Determin.  $\text{HNO}_3$  & S; organic synthesis, gas analysis, ultimate organic analysis, &c.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Hydroxide Merck.—Reagent.—Purified by Alcohol** (2)

Wh., v. hygroscop. rods or pieces; cryst. fract.; at least 80% KOH.—*Tests:* ( $\text{H}_2\text{SO}_4$ )  $\text{HNO}_3$  as preceding.—(Cl) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 5 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + few drops solut.  $\text{AgNO}_3$ —at most sl't opalesc., but no ppt.—(Si) 5 Gm. + 25 Ce.  $\text{H}_2\text{O}$  + 25 Ce. HCl (sp. gr. 1.124); evap. in platin. dish on W.-bath to dryness; dry res.  $\frac{1}{2}$  hr. on sand-bath at abt. 120° C.; diss. in 10 Ce. HCl (sp. gr. 1.124) + 90 Ce.  $\text{H}_2\text{O}$ ; filter; wash res. & ignite—wt. of res. should not exceed 0.0025 Gm.—(Al; Ca; Heavy Met.) 5 Gm. + 20 Ce.  $\text{H}_2\text{O}$ —solut. clear & colorl.; add  $\text{H}_2\text{O}$  to make 100 Ce.; add 10 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96)—at most sl't turb. but no ppt.  $(\text{Al}[\text{OH}]_3)$  within 5 min.; & no immed. react. on add. solut.  $(\text{NH}_4)_2\text{C}_2\text{O}_4$  &  $(\text{NH}_4)\text{HS}$ .—*Uses:* As of preceding.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.—Reagent.—Purified** (2)

Wh., v. hygrosc. sticks or pieces; cryst. fract.; at least 80% KOH.—*Tests:* ( $\text{HNO}_3$ ) 2 Gm. + 10 Ce.  $\text{H}_2\text{O}$  + 10 Ce. dil.  $\text{H}_2\text{SO}_4$  + 1 drop. 1:1000 indigo solut. + a granule  $\text{NaCl}$  + 10 Ce. conc.  $\text{H}_2\text{SO}_4$ —blue color should not disapp. within 10 min.—(Al; Ca; Heavy Met.) 2.5 Gm. + 10 Ce.  $\text{H}_2\text{O}$ —clear, colorl. solut.;  $\text{H}_2\text{O}$  to make 100 Ce. + 15 Ce. dil.  $\text{C}_2\text{H}_5\text{O}_2$  (sp. gr. 1.041) + 10 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96)—sl't turb. within 5 min. but no ppt.  $(\text{Al}_2[\text{OH}]_6)$ . To filtered solut. add solut.  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ —no immed. turb.; & w.  $(\text{NH}_4)\text{HS}$ —at most only sl't green color.—*Uses:* As of Potassium Hydroxide, Reagent, Purest.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.—Reagent.—Solution** (1)

(Potassa Lyce).—Clear, colorl. liq.; abt. 32% KOH.—*Sp. Gr.* 1.3. (The solut. of sp. gr. 1.138–1.140 cont. abt. 15% KOH.)—*Tests:* As detailed under potass. hydroxide, purif. by alcohol, using, however, 2.6 Gm. = 2 Ce. solut. KOH sp. gr. 1.3, or 5.7 Gm. = 5 Ce. solut. KOH sp. gr. 1.138–1.140, inst. of 1 Gm. KOH purif. by alcoh.—*Uses:* Gen'l precipitant, &c.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Hydroxide with Lime Merck.** Powder, lumps or sticks (1)

(Potash with Lime; Vienna Caustic; Vienna Paste; Potash-chalk).—Mix equal parts of calc. & potash hydroxides.  $\text{KOH} + \text{Ca(OH)}_2$  = 100. Dblg., grayish-wh. powd., or lumps, or sticks cont. 4 parts KOH & 1 part calc. hydroxide. *Caustic*.—*Uses*: *Extern.*, caustery in practice. *Caust.* Keep well stoppered.

**Potassium Hyperchlorate.**—see **Potassium Perchlorate**

**Potassium Hypophosphite Merck** (2)

$\text{KPH}_2\text{O}_2$ .—Wh. gran., dblg. powd., or opaque, wh. cryst.; pung., saline taste. *Sol.*, abt. 0.5 W., & 7 A. at 25° C.; 0.3 boil. W., & 3.6 boil. A.; insol. F., (U. S. P.). *Nerve Stimulant*. *Uses*: Phth., scrof., & all cases of deficient nerve power. *Dose*, 2-30 grains (0.12-2 Gm.). *Caust.* Explodes violently on trituration or heating w. any nitrate, chlorate, or o. oxidizer.

do. Merck.—Purified (2)

do. Merck. Highest Purity (12)

**Potassium Hyposulphate Merck** (15)

(Potassium Dithionate).— $\text{K}_2\text{S}_2\text{O}_6$ .—Colorl. cryst. *Sol.* W.

**Potassium Hyposulphite.**—see **Potassium Thiosulphate**

**Potassium Indigodisulphonate Merck** (35)

(Potassium Sulphindigotate, or Indigosulphate).— $\text{K}_2\text{C}_{16}\text{H}_8\text{N}_4\text{O}_{12}\text{S}_6$ .—Dark-blue powd.—*Sol.* W. *Uses*: Techn., in dyeing.

**Potassium Indigomonosulphonate Merck** (60)

$\text{KC}_{16}\text{H}_8\text{N}_4\text{O}_{12}\text{S}_4$ .—Dark-blue powd.—*Sol.* W. *Uses*: Techn., in dyeing.

**Potassium Indigosulphate.**—see **Potassium Indigodisulphonate**

**Potassium Iodate Merck** (11)

$\text{KIO}_3$ .—Wh. cryst.—*Sol.* W.—Antisept.; Alter. *Uses*: Diphth., gangr., stomatitis, & pyalism, inst. of potass. chlorate.—*Dose* 4-8 grains (0.25-0.5 Gm.) several t. p. d.

**Potassium Iodate Merck.—Reagent** (16)

$\text{KIO}_3$ .—Wh., cryst. powd.; 100% pure.—*Sol.* 13 cold, 3 boil. W. *Aqu.* acid, clear, & free fr. acidity. *Tests*: (*Free Acid*) 0.5 Gm. + 20 Ce. boiled  $\text{H}_2\text{O}$  + sm., cryst., neutr. KI + few drops freshly prep. starch solut.—no immed. blue color.—(*Iodide*) 2 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 5 Ce. dil.  $\text{H}_2\text{SO}_4$  + few drops starch solut.—no immed. blue color. *Uses*: Prepar. volumetric soluts.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Iodate, Acid.**—see **Potassium Binitiate**

**Potassium Iodide Merck.** Crystals or granulated (4)

KI—Colorl., transp., or transl., cubical cryst., or wh., gran. powd., pung., saline, bitter taste. *Sol.* 0.75 W., 2.5 G., 18 A. at 15° C.; 0.7 W., abt. 12 A. at 25° C.; 0.5 boil. W., 0.6 boil. A.; U. S. P. *Alter*; Lumen.; Uric Acid Solv.—*Uses*: *Intern.*, pleuritis, rheum., pericarditis, syph., aneurisus, pncum., dyspnea, scrof. swellings, lead poison, chron. metritis, amenor., &c.—*Extern.*, ointm. 1 to 10; also 1-100 solut. in corneal opacities.—*Techn.*, as reag.—*Dose* 2-10 grains (0.12-0.6 Gm.). *Antid.*, sodium bicarbonate, sodium sulphamate, naphthione acid.—*Incomp.*, hydrated chloral, tartaric acid, cadmel, silver nitrate, potass. chlorate, metallic salts, acids, alkaloidal salts.

do. Merck.—Highest Purity (5)

**Potassium Iodide Merck.—Reagent** (8)

KI—Wh., cubic, cryst.; not hygrosc. in air.—*Sol.*, abt. 0.75 W.; abt. 12 A. (85%); 40 absol. A. *Tests*: ( $\text{K}_2\text{CO}_3$ ) a: crush & place on moist red litmus paper—paper not immed. colored violet-blue; b: 0.5 Gm. + 10 Ce.  $\text{H}_2\text{O}$  + 1 drop solut. phenolphthalein—no red color.—(*Metals*:  $\text{H}_2\text{SO}_4$ ) a: 20 Ce. 1:20 solut. + aqu.  $\text{H}_2\text{S}$ —no react.; b: 20 Ce. 1:20 solut. + solut.  $\text{BaCl}_2$ —no react.—( $\text{KCN}$ ) 20 Ce. 1:20 solut. + a granule  $\text{FeSO}_4$  + 1 drop solut.  $\text{FeCl}_3$  + 5 Ce. solut. NaOH (sp. gr. 1.3); heat to 50-60° C.; add 10 Ce. HCl (sp. gr. 1.121)—no blue color.—( $\text{HIO}_3$ ) 20 Ce. 1:20 solut. freshly prep. w. boiled & cooled  $\text{H}_2\text{O}$  + starch solut.—2-3 drops dil.  $\text{H}_2\text{SO}_4$ —no immed. blue color.—( $\text{HNO}_3$ ) 1 Gm. + 5 Ce. solut. NaOH + 0.5 Gm. Zn-dust + 0.5 Gm. powd. Fe; heat—no  $\text{NH}_3$  evolved (test w. moist litmus paper).—(*Cl*; *Br*; *Thiosulphate*) 0.2 Gm. + 2 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96) + 13 Ce. decinorm.  $\text{AgNO}_3$ ; shake; filter; add to filtrate excess  $\text{HNO}_3$ —solut. should not become so cloudy as to be opaque, nor should a dark color develop within 10 min.—*Uses*: Prep. volumetr. soluts.; detect. iodates; determ. Cl, Br, ferric salts, chromates, chromic acid, autimony, phenols; & peroxides of hydrogen, magnesium, zinc, & other metals.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

do. Merck.—Reagent.—Neutral (12)

*Test*: (*Neutrality*) 10 Gm. + 50 Ce.  $\text{H}_2\text{O}$  in stoppered bot.; overlay w. 30 Ce. ether; add 3 drops iodoosine solut.; shake vigorously—the aqu. layer acquires a pale-red color which disappears on add. 1 drop centinorm. HCl & shaking.—Other tests, & uses, as of preceding.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Potassium Iodide-Starch Paper**

(Schonbein's Ozone Paper).—Wh. paper impregnated w. a potassium iodide-starch paste.—*Uses*: Detecting oxidizers, as chlorine, iodine, bromine, nitrous acid, & ozone (blue color).

**Potassium Iodoplatinate.**—see **Platinum & Potassium Iodide****Potassium Iridichloride.**—see **Iridium & Potassium Chloride****Potassium Isoamylsulphate.**—see **Potassium Amylsulphate****Potassium Isobutylsulphate.**—see **Potassium Butylsulphate, Iso-****Potassium Isobutyrate.**—see **Potassium Butyrate, Iso-****Potassium Isopurpurate Merck** (140)

(Potassium Picrocyanate).—Fr. solut. potass. cyanide & picric acid.— $\text{KC}_8\text{H}_4\text{N}_5\text{O}_6$ .—Brownish-red scales; greenish, metal. luster.—*Sol.*, sl. in W.—Explodes at  $215^\circ\text{C}$ .—*Incomp.*, sulphuric acid (caus. explosion).—*Caut.* Highly explosive!

**Potassium Lactate Merck** (7)

$\text{KC}_3\text{H}_5\text{O}_3 + \text{aq.}$ —Colorl. to yellowish, syrupy liq.—*Sol.* W.

**Potassium Lactophosphate Merck** (15)

(Potassium Phospholactate).—Potass. phosphate w. 51.8% potass. lactate.—Wh., or syrupy mass.—*Sol.* W.

**Potassium Malate Merck** (45)

$\text{K}_2\text{C}_4\text{H}_4\text{O}_5$ .—Colorl., viscid mass.—*Sol.*, eas. W.—*Caut.* Keep fr. air.

**Potassium Manganate Merck.**—Crude (1)

$\text{K}_2\text{MnO}_4$ .—Dark-green powd.—*Sol.* W.—*Uses*: Disinf., & purify. water courses.—*Techn.*, for bleaching & purify. oils, bleaching fibers & chamouis skins, mordanting wood; in aniline dyeing as source of oxygen, in printing fabrics, manuf. odorl. batteries, washing  $\text{CO}_2$  in manuf. mineral waters, disinf., exterminating *Oidium Tuckeri*, photography, etc.

**Potassium Metabisulphite.**—see **Potassium Pyrosulphite****Potassium Metaborate Merck** (3)

$\text{K}_2\text{B}_2\text{O}_4$ .—Wh. powd.—*Sol.* W.

**Potassium Metantimonate, Acid.**—see **Potassium Antimonate****Potassium Methylsulphate Merck.**—Pure (4)

$2\text{KCH}_3\text{SO}_4 + \text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W., A.—*Caut.* Keep fr. air.

**Potassium Molybdate Merck** (7)

(Potassium Molybdenate).— $\text{K}_2\text{MoO}_4 + 5\text{H}_2\text{O}$ .—Microcryst., wh. powd.—*Sol.* W.

**Potassium Monophosphate.**—see **Potassium Phosphate, Dibasic****Potassium Monosulphide.**—see **Potassium Sulphide****Potassium Myronate Merck** (1250)

Fr. black mustard seed.— $\text{KC}_{10}\text{H}_{15}\text{NS}_2\text{O}_{10}$ .—Sm., wh. to yellowish cryst.; bitter taste.—*Sol.* W.; dil. A.

**Potassium Nitranilate Merck** (170)

$\text{K}_2\text{C}_6\text{N}_2\text{O}_8$ , or,  $\text{C}_6(\text{NO}_2)_2(\text{O}_2\text{OK})_2$ .—Greenish-yellow, microcryst. powd.; detonates violently when heated.—*Sol.*, sl. W.; insol. A.

**Potassium Nitrate Merck.**—Highest Purity, Medicinal, cryst. (1)

(Saltpeter; Niter).— $\text{KNO}_3$ .—Transp., colorl. prisms, or wh., cryst. powd.; cooling, saline, pung. taste.—*Sol.* 3.8 W. at  $15^\circ\text{C}$ .; (3.6 W. at  $25^\circ\text{C}$ .; 0.4 boil. W.; v. spar. A., U. S. P.).—Antisep.; Refrigerant; Diaret.; Diaph.—*Uses*: Fevers, dropsy, asthma, rheum., & dis. of muc. membr. Fumes of burning potass.-nitrate paper are inhaled in asthma.—*Extern.*, as gargle (1.100) in angina. Also chem.—*Dose* 10–60 grains (0.6–4 Gm.).—*Antid.*, opium, analeptics, iced water.

**do. Merck.**—Pure, powder (1)

*Uses*: Pyrotechn., pickling meat, fire extinguishers, &c.

**Potassium Nitrate Merck.**—Reagent (2)

$\text{KNO}_3$ .—Colorl., transp., prism. cryst., or cryst. powd.; perman. in air.—*Sol.* 4 cold, & less than 0.5 boil. W.; alm. insol. A.—Aq. solut. neutral to litmus paper.—*Tests*: ( $\text{H}_2\text{SO}_4$ ) 3 Gm. + 60 Ce.  $\text{H}_2\text{O}$  + 1 Ce.  $\text{HCl}$  (sp. gr. 1.124) + solut.  $\text{BaCl}_2$ —no ppt. within 12 hrs.—(*Cl*) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 1 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + solut.  $\text{AgNO}_3$ —no react.—( $\text{HClO}_4$ ;  $\text{HClO}_4$ ) gently ignite 1 Gm.; diss. res. in 20 Ce.  $\text{H}_2\text{O}$ ; add 1 Ce.  $\text{HNO}_3$  + solut.  $\text{AgNO}_3$ —no react.—(*a*; *Heavy Met.*) *a*: 3 Gm. + 50 Ce.  $\text{H}_2\text{O}$  + aq.  $\text{H}_2\text{S}$ —no react.; *b*: 3 Gm. + 50 Ce.  $\text{H}_2\text{O}$  + *a*;  $\text{NH}_4\text{OH}$ ; or *b*: ( $\text{NH}_4$ )<sub>2</sub> $\text{C}_2\text{O}_4$ ; or *c*: ( $\text{NH}_4$ )<sub>2</sub> $\text{S}$ —no react. in any case.—(*Fe*) 20 Ce. 1:20 solut. + 1 Ce.  $\text{HCl}$  (sp. gr. 1.124) +  $\text{KSCN}$  solut.—no red color.—( $\text{HNO}_2$ ) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 1 Ce. dil.  $\text{H}_2\text{SO}_4$  (sp. gr. 1.11) + 1 Ce. freshly prep. colorl. 1:200 solut. metaphenylenediamine hydrochloride—no yellow or yellowish-brown color.—*Uses*: Oxidizing flux in determ. halogens & S in organic substances; destroying organic matter in forensic analysis; detect. Cr & Mn.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Nitrate Paper**

Unsize, wh. paper, dipped in 20% solut. potass. nitrate & dried.—*Uses*: Asthma: inhale fumes while paper is burning.

**Potassium Nitrate with Potassium Sulphate.**—Fused, drops

(Sal Prunelle).—Mixt. 80% of potass. nitrate w. 20% potass. sulphate.—Sm., wh., flat drops;

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



cryst. fracture. — *Sol.* W. — *Act.* p., 10ur., &c.  
*Uses:* Sore mouth & throat, colds, &c.

**Potassium Nitrite Merck.**—Pure, sticks (2  
 $\text{KNO}_2$ —Wh., amorph., deliq. sticks.—*Sol.*, cas. W.—Increases cerebral circulat. —*Uses:* Asthma, epilepsy, hemiparesis; also chem.—*Dose*  $\frac{1}{2}$ –2 grains (0.015–0.12 Gm.) several t. p. d. —*Antid.*, naphthione acid, sodium sulphadiazote. —*Caut.* Keep well stoppered.

do. Merck (1

Yellowish-wh., deliq. lumps.—*Sol.* W.—*Uses:* Org. chem., & in manuf. diazo-dyes & cobalt yellow.

**Potassium Nitrite Merck.**—Reagent (3

$\text{KNO}_2$ —Wh. or slightly yellowish, tough sticks; deliquesce, in moist air; at least 90%  $\text{KNO}_2$ —*Sol.*, cas. W.—Aq. solut. alkali to litmus paper. —*Tests:* (*Heavy Met.*) 20 Ce. 1:20 solut. a few drops solut. ( $\text{NH}_4\text{HS}$ —no react.— $\text{H}_2\text{SO}_4$  20 Ce. 1:20 solut. + 5 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + solut.  $\text{Ba(NO}_3)_2$ —no react. —*Uses:* Determin. urea, cobalt, amino acids; detect. I.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Test," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Nitroprusside Merck.**—Cryst. (30

$\text{K}_2\text{Fe(NO)}_2(\text{CN})_4 + 2\text{H}_2\text{O}$ —Garnet-red, deliq. cryst.—*Sol.* W., A.—*Uses:* Test for albumin in urine, & as reagent for sulphides.—*Caut.* Keep dry, fr. air.

**Potassium Oleate Merck** (5

$\text{KC}_8\text{H}_{17}\text{O}_2$ —Yellowish mass.—*Sol.* W., A.—Detergent; Emollient.—*Uses:* Cleansing & healing agent in abscesses, injuries, &c.

**Potassium Orthoaminobenzoate.**—see **Potassium Anthranilate**

**Potassium Osmate.**—see **Potassium Perosmate**

**Potassium Oxalate Merck.**—Highest Purity, neutral (1

$\text{K}_2\text{C}_2\text{O}_4 + \text{H}_2\text{O}$ —Colorl., transp. cryst. —*Sol.* 3 W.—Aq. solut. neutral to litmus paper.—*Tests:* ( $\text{H}_2\text{SO}_4$ ) 5 Gm. + 200 Ce.  $\text{H}_2\text{O}$ ; boil; add 10 Ce.  $\text{HCl}$  (sp. gr. 1.124) + solut.  $\text{BaCl}_2$ —no ppt. within 12 hrs.—(Cl) 1 Gm. + 25 Ce.  $\text{H}_2\text{O}$  + 10 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + few drops solut.  $\text{AgNO}_3$ —no turb. on shak.—(*Heavy Met.*) 1 Gm. + 25 Ce.  $\text{H}_2\text{O}$  + aq.  $\text{H}_2\text{S}$ —no react.; add 5 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96)—no green color, & no ppt.—*Uses:* Testing quinine, &c.

do. Merck.—Pure, neutral, lumps & powd. (1

*Uses:* Photography.

**Potassium Oxalate Merck.**—Reagent (3

$\text{K}_2\text{C}_2\text{O}_4 + \text{H}_2\text{O}$ —Rhomb. prisms.—*Sol.* 3 W.—Aq. solut. neutral to litmus paper.—*Tests:* ( $\text{H}_2\text{SO}_4$ ) 5 Gm. + 200 Ce.  $\text{H}_2\text{O}$ ; boil; add 10 Ce.  $\text{HCl}$  (sp. gr. 1.124) + solut.  $\text{BaCl}_2$ —no ppt. within 12 hrs.—(Cl) 1 Gm. + 25 Ce.  $\text{H}_2\text{O}$  + 10 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + few drops solut.  $\text{AgNO}_3$ —no turb. on shak.—(*Heavy Met.*) 1 Gm. + 25 Ce.  $\text{H}_2\text{O}$  + aq.  $\text{H}_2\text{S}$ —no react.; add 5 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96)—no green color, & no ppt.—*Uses:* Testing quinine, &c.

*Note.*—For complete tests see "Chemical

Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Oxalate, Acid.**—see **Potassium Binoxalate**

**Potassium Oxypurate.**—see **Potassium Chlorate**

**Potassium Oxypurinolide diphosphate.**—see **Quinisol**

**Potassium Paratingstate Merck.**—Pure (15

(Potassium Parawolframate) —  $3\text{K}_2\text{O} \cdot 7\text{WO}_3 + 6\text{H}_2\text{O}$ , or,  $\text{K}_6\text{W}_7\text{O}_{23} + 6\text{H}_2\text{O}$ . —Wh., cryst. powd.—*Sol.* W.

**Potassium Parawolframate.**—see **Potassium Paratingstate**

**Potassium Percarbonate Merck.**—Pure (8

$\text{K}_2\text{C}_2\text{O}_8 + \text{H}_2\text{O}$ —Wh. cryst. —*Sol.* W., w. evol. of oxygen.—*Uses:* In microscopy for detect. tubercle bacilli stained w. fuchsin in smears, instead of treatment w. acid; also in photogr. under the name "Antihypo" for removing last traces of sol. thiosulph.; also in discharge printing of wool dyed w. indigo.

**Potassium Perchlorate Merck.**—Pure (6

(Potassium Hyperchlorate). —  $\text{KClO}_4$ . —Wh. cryst.—*Sol.*, sl. in W.—Antipyr.; Antipyr.; Sed.; Diur.—*Uses:* Pernicious fever & intermitt. or remit. fevers. Also in pyrotechn.—*Dose* 5–15 grains (0.3–1 Gm.).

**Potassium Perchlorate Merck.**—Reagent (10

$\text{KClO}_4$ —Colorl., rhomb. prisms.—*Sol.*, abt. 65 cold, 8 boil., W.; insol. A.—*Tests:* (Ca) (Cl) 20 Ce. 1:20 solut. prep. by heat. + solut. ( $\text{NH}_4\text{C}_2\text{O}_4$  + solut.  $\text{AgNO}_3$ —at most sl't opalesce.—(*Heavy Met.*) 20 Ce. 1:20 solut. prep. by heat. + aq.  $\text{H}_2\text{S}$ —no react.—( $\text{HNO}_3$ ) 1 Gm. + 5 Ce. solut.  $\text{NaOH}$  (sp. gr. 1.3) + 0.5 Gm. Zn-dust + 0.5 Gm. powd. Fe; heat—no  $\text{NH}_3$  vapors (test w. moist litmus paper).—( $\text{H}_2\text{SO}_4$ ) 20 Ce. 1:20 solut. prep. by heat. + solut.  $\text{BaCl}_2$ —no react.—*Uses:* Oxidizer, used v. much like the chlorate.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Periodate Merck** (35

$\text{KIO}_4$ —Sm., colorl. cryst.—*Sol.*, sl. W.

**Potassium Permanganate Merck.**—Large & small cryst. (1

$\text{KMnO}_4$ —Dark-purple, slender, opaque prisms; blue, metal. reflection; sweet, w. astring. after-taste.—*Sol.* 16 W. at 15° C.; (15 W. at 25° C., U. S. P.); 3 boiling W.—Decomp. 240° C.—Disinf.; Deodorant; Emmen.—*Uses:* Amenorr., dysmenorr., periton. after labor, involution or atrophy of uterus, diphth., zymotic dis. generally, & morphiae poison. 1% aq. solut. as injection in gonorr., gleet & leucorr. & snake bites,

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



& as wash in cancer, gangr. & foul-smelling ulc., abscesses, otor., & as general germicide, as mouthwash in stomatitis in 1:200 solut.—*Dose* 1–3 grains (0.06–0.2 Gm.), in solut. or pills made with kaolin & petrolatum, or with cacao butter, after meals.—*Incomp.*, acids (mineral), alcohol, ammonia, arsenites, bromides, carbolic acid, chlorides, charcoal, fats, ferrous salts, glycerin, gums, hydrogen dioxide, hypophosphites, hypsulphites, mercurous salts, oils, organic substances, oxalic acid, oxalates, picric acid, piperazine, sulphites, tannic acid, tartaric acid.—*Stains* can be removed with  $\text{H}_2\text{C}_2\text{O}_4$  or HCl.

**Potassium Permanganate Merck.**—Reagent (2  $\text{KMnO}_4$ ).—Dark-violet, alm. black prisms; steel-blue luster.—*Sol.* 16 cold, 3 boil., W.—*Aqu.* solut. neutral to litmus paper.—*Tests:* ( $\text{H}_2\text{SO}_4$ ; (7) 0.5 Gm.+2 Ce. 85% A.+25 Ce.  $\text{H}_2\text{O}$ ; boil; filter—filtrate colorl.; add to filtrate 2 Ce.  $\text{HNO}_3$  (sp. gr. 1.153)+a; solut.  $\text{Ba}(\text{NO}_3)_2$ ; & b:  $\text{AgNO}_3$ —not more than sl't opalesc. in either case.—( $\text{HNO}_3$ ) 0.5 Gm.+5 Ce.  $\text{H}_2\text{O}$ +1 Gm.  $\text{H}_2\text{C}_2\text{O}_4$  grad. added; heat to 50–60° C.; filter; mix 2 Ce. colorl. filtrate w. 2 Ce.  $\text{H}_2\text{SO}_4$  & overlay w. 1 Ce. solut.  $\text{FeSO}_4$ —no dark-colored zone.—( $\text{HClO}_4$ ) heat 2 Gm. in platin. cruc., & grad. add sm. pieces of paraffin until glowing ceases; let cool; treat res. w. 20 Ce.  $\text{H}_2\text{O}$ ; filter; to filtrate add 5 Ce.  $\text{HNO}_3$  (sp. gr. 1.153)+solut.  $\text{AgNO}_3$ —at most only sl't opalesc.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.**—Free from Sulphuric Acid (3 100% pure.—*Test:* ( $\text{H}_2\text{SO}_4$ ) 3 Gm.+150 Ce.  $\text{H}_2\text{O}$ +15 Ce. 85% A.; heat till decolorized; filter; to filtrate add 2 Ce.  $\text{HCl}$  (sp. gr. 1.124)+solut.  $\text{BaCl}_2$ —no ppt. within 12 hrs.—Other tests as preceding.—*Uses:* Chiefly for prepar. volumetric soluts.; determ. N, Fe, Cu, Mo, Cd, Hg, potass. ferrocyanide, dextrose, uranium,  $\text{H}_2\text{O}_2$  & o. peroxides, &  $\text{HNO}_3$ ,  $\text{H}_2\text{C}_2\text{O}_4$ , &  $\text{H}_2\text{BO}_3$ .

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Peroximate Merck** (2750 (Potassium Osmate).— $\text{K}_2\text{OsO}_4+2\text{H}_2\text{O}$ .—Violet cryst.—*Alter.*; *Sol.*—*Uses:* As of perosmic acid in epilepsy, neural, goiter, &c.—*Techn.*, as reagent for nitrogenous matter in water analysis.—*Dose*  $\frac{1}{15}$ – $\frac{1}{4}$  grain (0.004–0.015 Gm.).

**Potassium Perruthenate Merck** (7500 Fr. ruthenium tetroxide w. potass. hydroxide.— $\text{KRuO}_4$ .—Black, opaque cryst.—*Sol.*, sl. in W.

**Potassium Persulphate Merck** (3  $\text{K}_2\text{S}_2\text{O}_8$ .—Wh. cryst.—*Sol.*, sl. W.—*Uses:* Bleaching; exceedingly powerful oxidizer, & antiseptic, in 0.5–1.5% solut.; in photography,

under the name "Anthion" for removing last traces of thiosulphate from plates & paper.

**Potassium Phenate Merck** (4 (Potassium Phenylate, or Carbolate).— $\text{C}_6\text{H}_5\text{OK}$ .—Colorl. cryst.—*Sol.* W.—Antiseptic.—*Uses:* Diar., dysent., &c.—*Dose* 1–5 grains (0.06–0.3 Gm.).—*Caut.* Keep fr. air.

**Potassium Phenolsulphonate Merck** (2 (Potassium Sulphocarbonate).— $\text{C}_6\text{H}_4(\text{OH})\text{SO}_3\text{K}+\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W., A.—*Melt.* 400° C.—Antisept.; Antiparasitic; Germicide.—*Uses:* As an antiphyllloxerin, to check ravages of grapevine parasite.

**Potassium Phosphate Merck.**—Dibasic.—Highest Purity (2 (Potassium Monophosphate; Dipotassium Orthophosphate).— $\text{K}_2\text{HPO}_4$ .—Deliq., amorph., wh. powd.—*Sol.* W.—*Alter.*—*Uses:* Serof., rheum., phth., &c.—*Dose* 10–30 grains (0.6–2 Gm.).

**do. Merck.**—Pure (1 Cont. traces of chlorine & sulphate.

**Potassium Phosphate Merck.**—Monobasic (1 (Potassium Biphosphate; Monopotassium Orthophosphate).— $\text{KH}_2\text{PO}_4$ .—Colorl. cryst.—*Sol.* W.; insol. A.

**Potassium Phosphite Merck** (6  $\text{K}_2\text{HPO}_3$ .—Wh. powd.—*Sol.*, hot W.

**Potassium Phospholactate.**—see **Potassium Lactophosphate**

**Potassium Phtalimide Merck** (30 Fr. alcoh. solut. phtalimide, by alcoh. KOH.— $\text{KC}_8\text{H}_4\text{NO}_2$ .—Fine, wh. leaflets.—*Sol.*, sl. W.; insol. A., E.—Changes to potass. phtalimate by boil. in aqu. solut.—*Uses:* Antiseptic.

**Potassium Picraminate Merck** (70 (Potassium Dinitroaminophen(ol)ate).— $\text{KC}_6\text{H}_2(\text{NO}_2)_2$ .—Dark-brown cryst. mass.—*Sol.* W.; sl. A.

**Potassium Picrate** (Potassium Trinitrophenate, or -phenolate).— $\text{KC}_6\text{H}_2(\text{NO}_2)_3\text{O}$ .—Yellow, reddish, or greenish, shin. need.; explode when struck or heated.—*Sol.* 260 W. at 15° C.; 4 boil. W.—*Uses:* Techn.

**Potassium Picrocyanate.**—see **Potassium Isopurpurate**

**Potassium Piperate Merck** (85 Prep. by boil. piperine w. KOH & alc.— $\text{KC}_{12}\text{H}_9\text{O}_4$ .—Yellow, cryst. powd.—*Sol.*, hot W.

**Potassium Platinibromide.**—see **Platinum & Potassium Bromide**

**Potassium Platinichloride.**—see **Platinum & Potassium Chloride, Platinic**

**Potassium Platiniodide.**—see **Platinum & Potassium Iodide**

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Potassium Platinocyanide.*—see **Platinum & Potassium Sesquicyanide**

*Potassium Platinosulphate.*—see **Platinum & Potassium Sulphocyanate**

*Potassium Platinochloride.*—see **Platinum & Potassium Chloride, Platinous**

*Potassium Platinocyanide.*—see **Platinum & Potassium Cyanide**

**Potassium Propionate Merck.**—Pure (30)  
 $KC_2H_3O_2$ .—Sol., colorl. cryst.—*Sol. W.*  
 do. Merck.—Crude (8)

**Potassium Propylsulphate Merck** (50)  
 $KC_3H_7SO_4$ .—Fine, colorl. need.—*Sol. W.*

*Potassium Pyroantimonate.*—see **Potassium Antimonate**

*Potassium Pyroborate.*—see **Potassium Borate**

**Potassium Pyrophosphate Merck** (5)  
 $K_4P_2O_7$ .—Deliq., gran., cryst. mass.—*Sol. W.*

**Potassium Pyrosulphate Merck** (3)  
 (Anhydrous Acid Potassium Sulphate; Potassium Anhydrosulphate).— $K_2S_2O_7$ , or,  $K_2SO_4 \cdot SO_3$ .—Colorl. pieces.—*Sol. W.*

**Potassium Pyrosulphite Merck** (1)  
 (Potassium Metabisulphite).— $K_2S_2O_5$ .—Wh., cryst. crusts.—*Sol., sl. W.*

*Potassium Quadroxalate.*—see **Potassium Tetroxalate**

*Potassium Rhodanide.*—see **Potassium Sulphocyanate**

**Potassium Ruthenate Merck** (4250)  
 $K_2RuO_4 \cdot H_2O$ .—Brownish-black powd.—*Sol. W.*

*Potassium salicylaldehyde.*—see **Potassium Salicylite**

**Potassium Salicylate Merck** (3)  
 $KC_7H_5O_2$ .—Wh. powd.—*Sol. W., A.*—Antirheum.; Antipyv.; Analg.—*Uses:* Rheum., pleurisy, pericarditis, lumbago, muscular pains, &c.—*Dose* 5–15 grains (0.36–1 Gm.) several t. p. d.—*Caut.* Keep well stoppered.

**Potassium Salicylite Merck** (600)  
 (Potassium-salicylaldehyde; Potassium Ulmarate).— $C_6H_4OK \cdot COH$ .—Yellow, v. deliq. powd.—*Sol. W., A.*—Antirheumatic.—*Uses:* Rheum., lumbago, muscular pain, &c.—*Dose* 3–15 grains (0.2–1 Gm.) several t. p. d.—*Caut.* Keep well stoppered.

**Potassium Santoninate Merck.**—Pure, dry (125)  
 $KC_{15}H_{10}O_4$ .—Wh., deliq., cryst. powd.—*Sol. W., A.*  
 do. Merck.—Syrupy (40)  
 $KC_{15}H_{10}O_4$  + aq.—Colorl. to yellow, syrupy liq.—*Sol. W.*

**Potassium Selenate Merck** (450)  
 $K_2SeO_4$ .—Colorl. cryst., or wh. powd.—*Sol. W.*

**Potassium Silicate Merck.**—Pure, dry (2)  
 (Soluble Glass; Water-glass).— $K_2Si_2O_5$ .—Transl. to transp., sl'y deliq., glass-like piece.—*Sol. W.*  
*Uses:* Fixed dress. for dis. joints, fractures, &c.; also techn.  
 do. Solution (1)  
 (Water-glass Solution).—Abl. 10% of pot. silicate in  $W.$ — $K_2Si_2O_5$  + aq.—Colorl., sl'y turbid, syrupy liq., colorl.; alkali reac.—*Uses:* Pharm. & techn.—*Caut.* Stopper w. rubber or cork.  
 do. Solution, 30–33° Bé. Crude (1)  
*Uses:* Techn., in fireproofing fabries, cementing stones, waterproofing walls, hydraulic mortars, dyeing & bleaching, painting on glass, cements, filling soaps, &c.

**Potassium Silicofluoride Merck.**—Pure (3)  
 $K_2SiF_6$ , or,  $2KF \cdot SiF_4$ .—Fine, wh. powd.—*Sol., hot W.*—*Uses:* Manuf. silicon.

*Potassium Sozoiodolate.*—see **Sozoiodole-Potassium**

**Potassium Stannate Merck.**—Pure (6)  
 By fusing tin dioxide w. KOH.— $K_2SnO_3 \cdot 3H_2O$ .—Colorl. cryst.; alk. taste.—*Sol. W.*—*Uses:* In dyeing & printing fabries.

**Potassium Stannosulphate Merck.**—Reagent 10  
 (Marignae's Salt).— $K_2Sn(SO_4)_2$ .—Wh. cryst.—*Sol. HCl, dil. solut. KOH & NaOH.*—*Uses:* Detect. Hg & Bi; volum. determ.  $HNO_3$  by Longi's method.  
*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Stearate Merck.**—Pure (35)  
 $KC_{18}H_{35}O_2$ .—Wh., cryst. powd.—*Sol., hot W., w. part. decomp.; hot A.*

**Potassium Succinate Merck** (15)  
 $K_2C_4H_4O_4$ .—Wh. powd.—*Sol. W.*—*Uses:* Delir. tremens.—*Dose* 5–10 grains (0.3–0.6 Gm.) sev. t. p. d.

**Potassium Sulphate Merck.**—Highest Purity, Medicinal, cryst. or powder (1)  
 (Arcanum Duplicatum; Tartarus Vitriolatus).— $K_2SO_4$ .—Colorl., transp. cryst., or wh. powd.; bitter, saline taste.—*Sol. 9 W. at 25° C.; 1 boil. W.; insol. A., (U. S. P.).*—Cath.; Diur.; Aper.—*Uses:* Constip. & as antigalactae.—*Dose* 15–60–240 grains (1–15 Gm.) several t. p. d.  
 do. Merck.—Purified, cryst. or powder (1)

**Potassium Sulphate Merck.**—Reagent (2)  
 $K_2SO_4$ .—Wh., hard cryst.—*Sol. 10 cold, 1 boil., W.; insol. A.*—Aqu. solut. neutral to litmus paper.—*Tests:* (Cl; Fe; Cu; Ca; Mg) 20 Ce. each of 1:20 aqu. solut. not affected by: a: aqu.  $H_2S$ ; b:  $(NH_4)_2C_2O_4$ ; c: AgNO<sub>3</sub>; d: Na<sub>2</sub>HPO<sub>4</sub>.—(Fe) 1 Gm. + 20 Ce.  $H_2O$  + few drops HCl + solut. KSCN—no red color.—*Uses:* Precip. Ba, &c.  
*Note.*—For complete tests see "Chemical

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S on your orders**

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Sulphate, Acid.**—see **Potassium Bisulphate**

**Potassium Sulphide Merck** (2)  
(Potassium Monosulphide).— $K_2S$ .—Yellow to yellowish-red, fused, cryst. plates.—*Sol.* W.

**Potassium Sulphide Merck.**—Reagent (3)  
Leather-brown or yellowish-green pieces; deliquesce, in moist air.—*Solut.* in 2 W. leaves but sl't res., & is alkali. & yellowish-green; on add.  $C_2H_4O_2$ , gaseous  $H_2S$  copiously evolved.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Sulphide Merck.**—Reagent.—Solution.  
—For determining Nitrogen according to Kjeldahl (1)

5%  $K_2S$ .—*Test:* (N) 100 Cc. + 50 Cc. N-free solut. NaOH (sp. gr. 1.3) + 1 Gm. Zn-dust; distil off abt. 50 Cc.; collect distillate in U-tube receiver cont. abt. 20 Cc.  $H_2O$  + 2-3 Cc. decinorm. HCl; titrate w. decinorm. KOH (methyl orange indic.)—KOH solut. used should be at most 0.2 Cc. less than the quant. of decinorm. acid placed in receiver.—*Uses:* Determ. N.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Sulphindigotate.**—see **Potassium Indigodisulphonate**

**Potassium Sulphite Merck.**—Pure (3)  
 $K_2SO_3 + 2H_2O$ .—Wh. to yellowish-wh. powd.—*Sol.* 1 W. at 15° C.; sl. in A.—Antisep.; Lax.—*Uses:* Acid ferment. of stom., hemorrhoids, & gastric ulc.—*Dose* 15-60 grains (1-4 Gm.).

**do. Merck** (1)

*Uses:* Techn., dyeing & discharge print. fabrics.

**Potassium Sulphite, Acid.**—see **Potassium Bisulphite**

**Potassium Sulphobenzoate Merck** (15)  
 $C_{11}H_9SO_3COOK + 5H_2O$ .—Wh. to yellowish cryst.—*Sol.* W., A.—Antiseptic.—*Uses:* Skin dis. & eroded surf. in 0.4-0.5% solut.

**Potassium Sulphocarbonate.**—see **Potassium Phenolsulphonate**

**Potassium Sulphocarbonate Merck** (4)  
(Potassium Trithiocarbonate).— $K_2CS_3$ .—Yellowish-red, v. deliq. cryst.—*Sol.* W.—*Uses:* For baths in skin dis.; also as sensitive reagent for detect. Co & Ni. Also as antiphyloxerin.

**Potassium Sulphocyanate Merck.**—Pure (2)  
(Potassium Thiocyanate or Rhodanide or Sulphocyanide).—KSCN. Colorl. need.—*Sol.* W.

A.—Sed.; Antispasm.; Anod.—*Uses:* Phth., cough, catarrh, dyspnea, mania, &c.—*Dose*  $\frac{3}{4}$ -3 grains (0.05-0.2 Gm.).—*Max. D.* 5 grains (0.3 Gm.) single; 24 grains (1.5 Gm.) p. d.

**Potassium Sulphocyanate Merck.**—Purified (2)  
*Uses:* In frigorific mixtures, & in manuf. artif. mustard oil.

**do. Merck.**—Commercial (1)

**do.**—Solution

(Vollhard's Solution).—9.653 Gm. of pure cryst. potass. sulphocyanate in Uliter (U. S. P.).—*Uses:* In indirect determination of silver, or halogens.

**Potassium Sulphocyanate Merck.**—Reagent (4)  
KSCN. Colorl., prism. cryst.; deliquesce. in air.—*Sol.*, eas. W., A.—*Tests:* (*Impur. Insol. A.*) 1 Gm. + 10 Cc. boil. absol. A.—compl. solub.; clear solut.—( $H_2SO_4$ ) 1 Gm. + 20 Cc.  $H_2O$  + few drops HCl + solut.  $BaCl_2$ —no react. within 5 min.—(*Heavy Met.*) 1 Gm. + 20 Cc.  $H_2O$  + few drops  $(NH_4)HS$ —no brown or green color, & no ppt.—(*Fe*) 1 Gm. + 20 Cc.  $H_2O$  + 0.5 Cc. HCl (sp. gr. 1.124)—no coloration.—*Uses:* Detect. Fe, Cu, & Ag; determ. halogens, Cu & Hg.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Sulphocyanide.**—see **Potassium Sulphocyanate**

**Potassium Sulphocyanoplatinate.**—see **Platinum & Potassium Sulphocyanate**

**Potassium Sulphostannate.**—see **Potassium Stannosulphate**

**Potassium Sulphovinate.**—see **Potassium Ethylsulphate**

**Potassium Sulphydrate Merck** (5)  
(Potassium Hydrosulphide).— $2KHS + H_2O$ .—Colorl., deliq. cryst.—*Sol.* W. (solut. decomp. on boil.).

**Potassium Sulphydrate Merck.**—Reagent (6)  
 $2KHS + H_2O$ .—Colorl., deliquesce. cryst.—*Sol.*, eas. W., A.—*Solut.* strongly alkaline to litmus paper; on boil., is decomp. w. evol. of  $H_2S$ , & form. of KOH.—*Test:* (*Polysulphide*) 1 Gm. + 20 Cc.  $H_2O$ —solut. clear & colorl.; add HCl— $H_2S$  copiously evolvs. & liq. exhibits sl't opalesc. turb., but no separ. of S.—*Uses:* Separating heavy metals (Bi, Cd, Cu).

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium Tannate Merck** (9)  
Approx.:  $KC_{14}H_9O_9$ .—Brown powd.—*Sol.* W.

**Potassium Tartrate Merck.**—Pure, cryst., or powder (1)

(Soluble Tartar).— $2K_2C_4H_4O_6 + H_2O$ .—Colorl., transp. cryst., or wh. powd.—*Sol.*, abt. 2 W. at

**Comparative Values** (see Preface, page v): 1= Cheap Articles; 2= Salol; 3= Guaiacol; 4= Potassium Iodide; 5= Iodoform; 11= Silver Nitrate; 25= Strychnine; 41= Veratrine; 55= Morphine Sulphate; 225= Aconitine; 570= Gold Tribromide; 1111= Eserine Sulphate; 1710= Hyoseyamine; 2565= Homatropine Hydrobromide; 3000 & over= Very Expensive Articles.



0° C., 0.8 W. at 17.5° C.; 0.35 W. at 100° C.; almost all A.—Dilut., lax.—*Uses*: Check griping effects of serum; also in fevers as refrigerant.—*Dose*:—Dilut., 15–30 grains (1–2 Gm.) several t. p. d.; lax., 2–8 grains (8–30 Gm.).

**Potassium Tellurate Merck** (500)

$K_2TeO_6 \cdot 5H_2O$ —Wh. cryst. *Sol.* W.—Anti-hydrotic.—*Uses*: Night sw. of phth.—*Dose*:  $\frac{1}{2}$ –1 gram (0.05–0.06 Gm.) at night, in pills.

**Potassium Tellurite Merck** (500)

$K_2TeO_5$ —Wh., amorph. powd.—*Sol.* W.

*Potassium Tetraborate*.—see **Potassium Borate**

**Potassium Tetroxalate Merck** (3)

(Potassium Quadroxalate).— $KHC_2O_4 \cdot H_2C_2O_4 + 2H_2O$ —Transp. monoc. prisms.—*Sol.* 55 W.

**Potassium Tetroxalate Merck**.—Reagent (4)

$KHC_2O_4 \cdot H_2C_2O_4 \cdot 2H_2O$ .—Colorless, triclinc. cryst.—*Sol.* 55 W.—Aq. solut. acid to litmus paper.—*Tests*: (Cl;  $H_2SO_4$ ; Heavy Met.) as for potassium oxalate.—*Uses*: Prepar. standard volumetric soluts.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

*Potassium Thiocyanate*.—see **Potassium Sulphocyanate**

**Potassium Thiosulphate Merck** (2)

(Potassium Hyposulphite).— $2K_2S_2O_3 + 3H_2O$ .—Wh., hygros. cryst.—*Sol.* W.—*Caut.* Keep well stoppered.

*Potassium Trinitrophenate*, or -phenolate.—see **Potassium Picrate**

*Potassium Trithiocarbonate*.—see **Potassium Sulphocarbonate**

*Potassium Tritungstate*.—see **Tungsten Bronze, Violet**

**Potassium Tungstate Merck**.—Purified (4)

(Normal Potassium Wolframate).— $K_2WO_4 \cdot 5H_2O$ .—Heavy, deliq., cryst. powd.—*Sol.* W.; insol. A.—*Uses*: Techn., in manif. magenta bronze, &c.—*Caut.* Keep fr. damp air.

*Potassium Ulmarate*.—see **Potassium Salicylate**

**Potassium Urate Merck**.—Pure (18)

$K_2C_4H_4N_2O_6$ .—Wh. powd.—*Sol.*, sl. in W.

**Potassium Valerate Merck** (7)

$KC_5H_9O_2$ .—Wh. to yellowish cryst.—*Sol.* W.—Stimulant.—*Uses*: Hyst., insanity, & low fevers.—*Dose* 2–5 grains (0.12–0.3 Gm.) several times per day.

*Potassium Wolframate*.—see **Potassium Tungstate**

*Potassium Xanthate*.—see **Potassium Xanthogenate**

**Potassium Xanthogenate** (8)

(Potassium Ethylthiocarbonate, or Ethylxanthogenate, or Xanthate).—Fr. carbon disulphide w. alc. solut. KOH— $KC_2H_5S_2O_3$ , or,  $C_2H_5O_3SK$ .—Light yellow cry. t.—*Sol.* W., A.—Insecticide.—*Uses*: As an antiphyllotoxin.

*Potassium Zirconifluoride*.—see **Zirconium & Potassium Fluoride**

*Potassium & Ammonium Bimalate*.—see **Ammonium & Potassium Bimalate**

*Potassium & Ammonium Chromate*.—see **Ammonium & Potassium Chromate**

*Potassium & Ammonium Citrate*.—see **Ammonium & Potassium Citrate**

*Potassium & Ammonium Fluoride*.—see **Ammonium & Potassium Fluoride**

**Potassium & Ammonium Phosphate Merck** (4)

(Potassium Ammonium Hydrogen Orthophosphate).— $KNH_4HPO_4$ .—Wh. powd.—*Sol.* W.

**Potassium & Ammonium Tartrate Merck** (4)

Fr. cream of tartar w. amin. carbonate.— $NH_4K_2H_4O_6$ .—Wh., cryst. powd.—*Sol.* W.—Cathartic.

**Potassium & Antimony Sulphurated Merck**.—Powder (2)

(Hepar Antimony; Liver of Antimony).—Antimony oxide & sulphide, w. potass. sulphide, nitrate, & sulphate.—Brown powd.—*Sol.*, part. W.—*Uses*: Chronic metallic poisoning.—*Extern.*, in mouthwashes & lotions in 1% solut.; mixed w. water to paste as depilatory.—*Dose* 1–5 grains (0.06–0.3 Gm.).

*Potassium & Copper Salts*.—see under **Copper & Potassium**

*Potassium & Lithium Platinocyanide*.—see **Platinum & Potassium & Lithium Cyanide**

*Potassium & Osmium Chloride*.—see **Osmium & Potassium Chloride**

*Potassium & Palladium Chloride*.—see **Palladium & Potassium Chloride**

**Potassium & Sodium Borotartrate Merck** (2)

(Soluble Cream of Tartar; Borated Tartar).—71.5% potass. bitartrate, & 28.5% borax.—Wh., deliq. powd.—*Sol.* W.—Cath.; Diur.; Antisep.—*Uses*: Constip. & diar. due to ferment. changes in intest.; particularly in urinary calculi & gravel.—*Doses*: Diur., 8–30 grains (0.5–2 Gm.); mild lax., 75–120 grains (5–8 Gm.) 3–4 t. p. d.

**do.** Merck. — Soluble, scales (2)

Wh., lustr. scales.—*Sol.* W.

*Potassium & Sodium Platinocyanide*.—see **Platinum & Potassium & Sodium Cyanide**

**Potassium & Sodium Tartrate Merck**.—Highest Purity, cryst. or powder (1)

(Rochelle, or Seignette, Salt).— $KNaC_4H_4O_6 \cdot 4H_2O$ .—Colorl., transp. cryst., or wh. powd.—

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Sol.* 1.4 W. at 15° C.; (abt. 1.2 W. at 25° C.; less than 1 boil. W.; alm. insol. A., U. S. P.).—*Melt.* 74° C.—*Purg.*; *Refrig.*; *Diur.*—*Uses:* Constip., headache, rheum., dropsy. Preferred as lax. in hemorrhoids.—*Doses:* *Diur.*, 8-30 grains (0.5-2 Gm.) several t. p. d.; *purg.*, 4-8 dr. (15-30 Gm.).

**Potassium & Sodium Tartrate Merck.**—Cryst. or powder (1)

**Potassium & Sodium Tartrate Merck.**—Reagent.—Cryst. (2)

$\text{KNaC}_4\text{H}_4\text{O}_6 + \text{H}_2\text{O}$ .—*Colorl.*, prism. cryst.—*Sol.* 1.4 W.—*Solut.* neutral.—*Tests:* (Ca) 1 Gm. + 10 Ce.  $\text{H}_2\text{O}$  + 5 Ce. dil.  $\text{C}_2\text{H}_3\text{O}_2$ ; shake few min.—cryst. ppt. forms; filter; dil. filtrate w. equal vol.  $\text{H}_2\text{O}$ ; add 8-10 drops solut.  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ —no turb. within 1 min.—(*Heavy Met.*) 1:20 solut. should not be affected by aq.  $\text{H}_2\text{S}$ .—(Cl;  $\text{H}_2\text{SO}_4$ ) 1 Gm. + 10 Ce.  $\text{H}_2\text{O}$  + 5 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) +: a: solut.  $\text{AgNO}_3$  & b: solut.  $\text{Ba}(\text{NO}_3)_2$ —no react. in either case.—(*NH<sub>4</sub> Compounds*) 1 Gm. + 10 Ce.  $\text{H}_2\text{O}$  + 10 Ce. solut.  $\text{NaOH}$  (sp. gr. 1.3); heat—no  $\text{NH}_3$  evolved (test w. moist litmus paper).—*Uses:* Prepar. Fehling's & similar soluts.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Potassium & Zinc Iodide Merck** (60)

$\text{ZnI}_2 \cdot \text{KI}$ .—*Colorl.*, v. hygros. cryst.—*Uses:* Reag. for detect. of alkaloids.

*Prickly Ash.*—see **Xanthoxylum**

*Pride of India.*—see **Azedarach**

*Primrose.*—see **Primula**

**Primula**

(Primrose; Cowslip; Cowslip Primrose; Culver-Keys; Lady's Fingers).—Flowers & root of *Primula officinalis*, Jacquin. Primulaceae.—*Habit.*: Europe; Northern Asia.—*Etymol.*: Fr. Lat. "primus," first (early spring time), i.e., the flower blooms early.—*Constit.*: *Flowers:* Fixed oil; resin.—*Root:* Bitter principle; cyclamin (arthanitin)  $\text{C}_{20}\text{H}_{34}\text{O}_{10}$ .—*Uses:* *Flowers:* Antispasm.; Nervine.—*Root:* Sternut.; Nervine; Diuret.; Astring.; Vermif.; Analgesic.—*Dose:* *Flowers:* 5-15 grains (0.3-1 Gm.).

**Primuline Yellow Merck** (8)

(Carbontine; Polychromine; Thiochromogen; Aureoline; Sulphine).—Mixture of sodium salts of the monosulphonic acids of the higher derivatives of dehydrothioparatoluidine, with some salt of dehydrothioparatoluidinsulphonic acid.—Dull, yellow powd.—*Sol.* W.—*Uses:* Dyeing unmord. cotton primrose-yellow, in alkali or neut. bath.

**Proferrin** (10)

(Iron Nucleoprotein).—Organic iron-phosphorus compound.—10% Fe; 1% P.—Reddish-brown powd.—Insol. W. & acids.—Hematine.—*Uses:* Anemia.—*Dose* 5 grains (0.3 Gm.) 3 t. p. d.

*Propionitrile.*—see **Ethyl Cyanide**

*Propargyl Tribromide.*—see **Allyl Tribromide**

*Propenyl Oxide.*—see **Allyl Oxide**

**Propionamide Merck** (80)

Fr. ethyl propionate, by ammonia.— $\text{C}_2\text{H}_5\text{ON}$ , or,  $\text{C}_2\text{H}_5\text{CO}_2\text{NH}_2$ .—*Colorl.* cryst.—*Sol.* W.—*Melt.* 79° C.—*Boil.* 213° C.

*Propione.*—see **Diethylketone**

*Propionic Anhydride.*—see (Acid) **Propionic Anhydride**

*Propionic Glycocol.*—see **Alanin, Alpha-**

*Propionitrile.*—see **Ethyl Cyanide**

**Propionyl Chloride Merck** (95)

Fr. propionic acid w. phosphorus trichloride & heat.— $\text{C}_2\text{H}_5\text{OCl}$ , or,  $\text{C}_2\text{H}_5\text{COCl}$ .—*Colorl.* liq. Sp. Gr. 1.0646 at 20° C.—*Boil.* 78° C.

*Propionylphenetidin.*—see **Triphenin**

**Propional** (100)

(Dipropylbarbituric Acid Merck; Dipropylmalonylurea Merck).— $(\text{C}_2\text{H}_5)_2\text{C}:(\text{CO}_2\text{NH})_2\text{CO}$ .—*Colorl.* cryst.—*Sol.* 1640 W. at 20° C.; abt. 70 boil. W.; cas. in A., E., B., C., & dil. alkalies.—*Melt.* 145° C. (corr.).—*Hypnot.*; *Analges.*—*Uses:* *Insomn.*—*Dose* 2 1/2-8 grains (0.15-0.5 Gm.); the higher dose is, however, rarely necessary.—Also marketed in tabl., each cont. 1 1/2 grains (0.1 Gm.).—Best given in powd., or w. W., tea, or some alcoholic beverage.

**Propyl Acetate Merck** (20)

$\text{CH}_3\text{COOCC}_2\text{H}_5$ .—*Colorl.* liq.; like ethyl acetate odor of pears.—*Sol.* A.—Sp. Gr. 0.909 at 0° C.—*Boil.* 102° C.

**Propyl Bromide (Iso-) Merck** (50)

(Isopropyl Bromide).—Fr. isopropyl iodide by addition of bromine.— $\text{C}_3\text{H}_7\text{Br}$ , or,  $\text{CH}(\text{CH}_3)_2\text{Br}$ .—*Colorl.* liq.—*Sol.* A.—Sp. Gr. 1.3583 at 0° C.—*Boil.* 60° C.

**Propyl Bromide (Normal) Merck** (40)

Fr. normal propyl alc., by hydrobromic acid.— $\text{C}_3\text{H}_7\text{Br}$ , or,  $\text{CH}_3\text{CH}_2\text{CH}_2\text{Br}$ .—*Colorl.* liq.—*Sol.* A.—Sp. Gr. 1.358 at 15° C.—*Boil.* 71° C.

**Propyl Butyrate Merck** (20)

(Propyl Ester of Normal Butyric Acid).— $\text{C}_7\text{H}_{14}\text{O}_2$ , or,  $\text{C}_3\text{H}_7\text{COOCC}_2\text{H}_5$ .—*Colorl.* liq.—*Sol.* A.—Sp. Gr. 0.879 at 15° C.—*Boil.* 143° C.

**Propyl Carbamate Merck** (50)

(Normal Propyl Ester of Carbamic Acid; Propyl Urethane).— $\text{C}_4\text{H}_9\text{NO}_2$ , or,  $\text{C}_3\text{H}_7\text{NH}_2\text{CO}_2$ .—*Colorl.* prisms.—*Sol.* A.—*Melt.* 53° C.—*Boil.* 195° C.

*Propyl Carbinol.*—see **Alcohol Butylic, Primary, Normal**

**Propyl Chloride Merck** (30)

(Normal Propyl Chloride).—By chlorinating normal propyl alcohol.— $\text{C}_3\text{H}_7\text{Cl}$ , or,  $\text{CH}_3\text{CH}_2\text{CH}_2\text{Cl}$ .

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.







**Prunella**

(Heal-all; Self-heal; All-heal).—Herb of *Prunella vulgaris*, L. Labiate.—*Habit.*: Europe; Asia; North America.—*Etymol.*: Lat. "pruna," glowing coal, referring to its former use in croup.—*Constit.*: Resin; bitter subst.; tannin.—*Uses*: Domestic remedy in croup, hemorrhages, & as vulnerary (both given intern. & applied extern.).

*Prunin.*—see **Cerasin**

**Prunus Padus**

(Bird Cherry; Hag Cherry; Hag Berry; Fowl Cherry).—Bark of *Prunus Padus*, L. Rosaceæ.—*Habit.*: Europe.—*Etymol.*: Fr. Grk. "prunos," a plum tree.—*Constit.*: Tannin; amygdalin; laurocerasin.—*Diuret.*: Diaph.; Febrif.—*Uses*: Spasmodic cough, rheum., syph.

**Prunus Spinosa**

(Acacia Flowers; Sloe-Thorn; Wild Plum; Black-thorn Flowers).—Flowers of *Prunus spinosa*, L. Rosaceæ. Drupaceæ.—*Habit.*: Europe; sparingly natur. in U. S.—*Etymol.*: For "prunus" see preceding. Lat. "spinosa," spiny, thorny; also Grk. "akakia," fr. "ake," a point, i.e., the branches are thorny.—*Constit.*: Amygdalin.—*Uses*: Blood purifier & mild laxative.—*Dose* 75 to 120 grains (5-8 Gm.) in infus.

**Prunus Virginiana.**—U. S. P.

(Choke Cherry; Wild Cherry).—Bark of *Prunus serotina*, Ehrhart, collected in autumn. Rosaceæ.—*Habit.*: North America.—*Etymol.*: Fr. Grk. "prunos," a plum tree; & "serotinus" fr. "serus," late, i.e., late to ripen.—*Constit.*: Tannin; amygdalin; emulsin; bitter principle; resin.—*Tonic*; Febrif.; Pectoral; Sedat.—*Uses*: Bronchitis, gen'l or local irrit., debil., stom., serof., tubercul., &c.—*Dose* 30-60 grains (2-4 Gm.) in powd., fld. extr., or infus.

*Prussian Blue.*—see **Iron Ferrocyanide**

*Pseudoaconitine.*—see **Aconitine** fr. *Aconitum Ferox*

*Pseudobutylenc Bromide.*—see **Butylene, Beta-, Bromide**

*Pseudo-calabar Bean.*—see **Cali**

*Pseudocodeine.*—see **Codeine, Pseudo-**

*Pseudoconhydrine.*—see **Conhydrine, Pseudo-**

*Pseudocumene* (or, -ol).—see **Cumene**

*Pseudocumidine.*—see **Cumidine, Pseudo-**

*Pseudohyoscyamine.*—see **Hyoscyamine (Pseudo-)**

**Pseudopelletierine Merck** (750)

(Pseudopunicine; Granatonine).—Fourth alkaloid fr. root bark *Punica Granatum*, L. (Pomegranate).— $C_9H_{15}NO + 2H_2O$ . Yellowish cryst.—*Sol.* W., C.—*Melt.* 46° C.—Not a teniafuge.

**Pseudopelletierine Hydrochloride Merck** (600)

(Pseudopunicine Hydrochloride).— $C_9H_{15}NO \cdot HCl$ .—Wh. cryst.—*Sol.* W.

**Pseudopelletierine Sulphate Merck** (500)

(Pseudopunicine Sulphate).— $(C_9H_{15}NO)_2 \cdot H_2SO_4 + 4H_2O$ .—Wh. cryst.—*Sol.* W.

*Pseudopunicine.*—see **Pseudopelletierine**

*Psidium.*—see **Araça; Guava**

**Psyllium**

(Fleawort; Fleasced).—Seed of *Plantago Psyllium*, L. Plantaginææ.—*Habit.*: Southern Europe.—*Etymol.*: Grk. "psylla," a flea, because of the resemblance of the seed to a flea.—Seeds are flea-colored, boat-shaped, & shiny on the convex surface.—*Constit.*: Mucilage. — Mucilaginous Demule.; Aper.—*Uses*: *Techn.*, size for silk, printing fabrics, & in paper manuf.—*Dose*, tablespoonful, to relieve chronic constipation.

**Ptarmica**

(Sneezewort; White Tansy; Sneezewort Tansy or Yarrow).—Herb of *Achillea Ptarmica*, L. Compositæ. Synantherææ.—*Habit.*: Europe; Asia; natur. in U. S.—*Etymol.*: Grk. "ptarmikos," causing sneezing, referring to the effect produced by the plant. "Achillea" fr. Achilles, the reputed discoverer of *Achillea millefolium*, & who is said to have healed Telephus with it.—*Constit.*: Volat. oil.—*Tonic*; Sternut.; Sialagogue.—*Uses*: Epilepsy, catarrh, hematuria, & uterine bleeding.

**Ptelea**

(Hop Tree; Wafer Ash; Wing Seed).—Bark of root of *Ptelea trifoliata*, L. Rutaceæ.—*Habit.*: Ontario to northern Mexico, through eastern U. S.—*Etymol.*: Grk. "ptelea," elm. "Trifoliata" refers to the occurrence of three leaves in a cluster in this plant.—*Constit.*: Volat. oil, fixed oil, gum, albumin; berberine(?). The root contains arginine,  $C_6H_{14}N_4O_2$ .—*Uses*: Tonic in convalesc. & dyspep.; also as appetite restorer.—*Dose*: Fld. extr., 15-30 ℥ (1-2 Ce.).

**Ptelein** (40)

Alcoh. extr. fr. root bark *Ptelea trifoliata*, L.—*Sol.* A.—*Tonic*; Stim.—*Uses*: Eclectic & domestic practice; dyscp. & tonic for convalesc.—*Dose* 1-3 grains (0.06-0.2 Gm.).

*Pterocarpus Marsupium.*—see **Kino**

**Pterocarpus Pallidus**

(Narra; Palo Nefritico; Asana).—Wood of *Pterocarpus pallidus*, Blanco. Leguminosæ. Papilionaceæ.—*Habit.*: Philippine Islands.—*Etymol.*: Grk. "pteros," wing; & "karpos," fruit, i.e., the pod is winged. Lat. "pallidus," pale, refer. to the color of the fruit.—*Uses*: In gravel & calculi.

**Ptyalin Merck** (25)

Amalolytic ferment fr. salivary glands of pigs.—Yellowish powd.—*Sol.* G.; partly in W.—*Uses*: Dyspep.; also for convert. starch into dextrin & maltose sugar.—*Dose* 10-30 grains (0.6-2 Gm.) several t. p. d.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

## Pyralin Glycerite Merck (6)

Solut. of pyralin in glycerin.—Brownish liq.—*Misc.* W.

## Ptyalin-pepsin Merck (35)

Mixt. of ptyalin & pepsin.—Yellowish-wh. powd.—*Sol.* G.; partly in W.—*Amylolyt.* Proteolyt.—*Uses:* Dyspep.—*Dose* 10-30 grains (0.6-2 Gm.).

## Ptychosis Coptica.—see Ajowan

## Pulegium

(European Pennyroyal; Brotherwort; Flea Mint).—Herb of *Mentha Pulegium*, L. Labiata.—*Habit.*: Europe.—*Etymol.*: Lat. "pulex," flea, i.e., the plant is supposed to be disagreeable to fleas, & to drive them away.—*Constit.*: Volat. oil; tannin.—*Carmin.*; Emmen.; Abortifac.

## Pulmoform.—see Methylenediguaiacol

## Pulmonaria

(Lungwort; Spotted Lungwort).—Herb of *Pulmonaria officinalis*, L. Boraginaceae.—*Habit.*: Europe.—*Etymol.*: Lat. "pulmo," lung, referring to its use in pulmonary affections.—*Constit.*: Mucilage.—Emoll.; Demulc.; Expecto-; Pectoral.—*Uses:* Pulmon. dis., hemopt., &c.—*Dose:* Fld. extr., 30-60 M (2-4 Cc.).

## Pulsatilla

(Pasque Flower; Wind Flower; Meadow Anemone; Easter Flower).—Herb of *Anemone Pulsatilla*, L., & *A. pratensis*, L. Ranunculaceae. Collected soon after flowering.—*Habit.*: Europe; Asia.—*Etymol.*: Lat. "pulsatilla," a small bell, referring to the shape of the corolla. "Anemone" fr. Grk. "anemos," wind, i.e., it was supposed that the flowers required the assistance of the wind to expand.—*Constit.*: Anemonin,  $C_{10}H_8O_2$ ; volat. oil; bitter subste.; tannin.—*Sed.*; Anod.; Mydriatic; Diur.; Diaph.; Emmen.; Expecto-; Vesicant; Emet.—*Uses:* Syphilis, catarrhal inflam., dysmenor., ovaralgia, asthma, rheumat., coughs, coryza, orchitis, epididymitis, &c.—*Doses:* 2-5 grains (0.12-0.3 Gm.).—*Alcoh. extr.*,  $\frac{1}{4}$ -1 grain (0.015-0.06 Gm.); *Max. D.* 2 grains (0.12 Gm.) single, 6 grains (0.4 Gm.) daily.—*Fld. extr.*, 2-5 grains (0.12-0.3 Gm.); *Max. D.* 5 M (0.3 Cc.) single, 15 M (1 Cc.) daily.—*Tinct.* of recent herb, 5-15 M (0.3-1 Cc.) in toothache.

## Pulsatilla Camphor.—see Anemonin

## Pumice

A light, porous stone of volcanic origin.—*Habit.*: Chiefly Lipari Island, & Grecian Archipelago.—*Constit.*: Chiefly silica with potassa & soda.—*Uses:* Abradant & polish. Also in chemical analysis when impregnated with dehydrating substances ( $H_2SO_4$ , etc.).

## Pumpkin Seed.—see Pepo

## Punicine (and Salts).—see under Pelletierine

## Pure Blue (Aniline Blue) Merck (10)

(Water Blue, China Blue).—Salts of triphenyl-*roaniline*- & triphenylpararosamine-trisulphonic acids & of the corresponding disulphonic acids.—Blue powd.—*Sol.* W.—Antimalarial, like methylene blue.—*Dose* 5 grains (0.3 Gm.) 3 t. p. d.—*Techn.*, dyeing cotton & silk.

## Purgatin (17)

(Purgitol; Anthrapurpurine Diacetate [or Diacetyl-ester]).—Yellow, tastel. powd.—*Sol.*, alkalies; insol. W., dil. acids.—Purgative.—*Dose* 8-30 grains (0.5-2 Gm.).

## Purgen—Phenolphthalein.—see Phenolphthalein

## Purging Nut.—see Curcas

## Purple Boneset.—see Eupatorium Purpureum

## Purple of Cassius.—see Gold-Tin Purple

## Purpureocobaltic Chloride.—see Cobalt (Purpureo-) Chloride

## Purpurine-Alum.—see Ranvier's Purpurine-Alum

## Purpurine-Glycerin.—see Grenacher's Purpurine-Glycerin

## Purpurine Red Merck.—Powder (50)

(Trioxanthraquinone; Isopurpurine; Anthrapurpurine).—Found in madder root, or prep. artif. fr. alizarin by oxid'n.— $C_{14}H_8O_5$ , or,  $C_6H_4-(CO)_2C_6H_3(OH)_3$ ; [(OH) $_3$ =1:2:3].—Brownish-yellow powd.—*Sol.* A., w. yellow color; in alkalies w. red color; E.; v. sl. cold W., but more so in hot W. Gives with boil. sat. solut. alum a yellowish-red, strongly fluorescent solut.—*Melt.* 253° C.—*Uses:* Dyeing.

## do. Merck.—Paste (10)

Reddish-brown paste.—*Sol.*, boil. W., A.—*Uses:* Dyeing cotton scarlet.

## Pyocyaneus Protein Honl-Merck (10)

(Protein Honl).—Extract fr. cultures of bacillus pyocyaneus.—Greenish, sl. alkaline liq.—*Uses:* Lotion in ulcer & purul. inflam. of upper jaw, &c.

## Pyoktanin Blue (30)

(Penta- & Hexa-methylpararosanine Hydrochloride Merck).—Fr. oxid'n prod. of dimethyl-aniline.—Violet, cryst. powd.; nearly odorl.; solut. v. diffusible in animal fluids.—*Sol.* C., 12 90% A., 50 G.; 30 boil., 50 hot, & 75 cold. W.; insol. E.—Antiscp.; Disinf.; Analg.—*Uses:* Surg., ophthalmiatric & otiatric practice, dis. of throat & nose, gonorr., leucorr., ulc., varicose ulc., burns, inflam., wounds, malignant & syph. neoplasms, conjunctivitis, &c. Unexcelled in veter. practice, & has specific healing effect in foot & mouth dis. of cattle. Stains removed by soap, rubbing well & washing with A. Powder is applied pure, or in 1:1000-100 solut. In pyloric carcinoma given in gelatin capsules.—*Dose* 1-5 grains (0.06-0.3 Gm.) in caps., at first once daily, then 2, finally 3 t. p. d.—

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Inj.*, in carcinoma, 75–180 m (5–12 Cc.) of 1% solut.—*Max. D.* 10 grains (0.6 Gm.) single; 20 grains (1.3 Gm.) p. day.—*Incomp.*, alkalies; mercuric chloride.—*Caut.* Keep solut. in dark-colored bot. & use only when recent.

**Pyoctanin Blue Merck.**—Pencils, large, in handles

*Uses:* Minor surgery, in cuts, sinuses, ulcers, sterilizing recent wounds, purulent wounds & ulcers, burns, inflam. of matrices of nails, &c.

**do. Merck.**—Pencils, small, in clasp-holders

*Uses:* Sterilizing corneal ulcers.

**Pyoctanin-Mercury Dinkler-Merck** (12)

Pyoctanin w. mercuric chloride.—Violet powd.—*Sol.*, sl. W. & A.; *insol. E.*—*Abt.* 16% mercury.—*Antisept.*—*Uses:* Gonorr. (1:2000 solut.), in burns (in powd. mixed w. equal weight starch), in favus (1:100 solut. in soap spirit, painted on affected part); preparing bandages, &c.

**Pyoctanin Yellow** (30)

(Imino - tetramethyldiamidodiphenylmethane Hydrochloride Merck; Apyonine; Medicinal Auramine).—Yellow powd.; somewh. resembling sulphur.—*Sol. W.*, A.—*Antisept.*; *Disinf.*—*Uses:* Considerably weaker than the blue, & principally employed in dis. of skin & ophthalmiatric practice.—*Dose* 1–8 grains (0.06–0.5 Gm.).—*Max. D.* 15 grains (1 Gm.).

**do. Merck.**—Pencils, large, in handles

*Uses:* Cuts, sinuses, ulcers, &c.

**do. Merck.**—Pencils, small, in clasp-holders

*Pyraloxin.*—see **Pyrogallol, Oxidized**

**Pyramidon** (45)

(Dimethylaminoantipyrine). —  $C_{11}H_{11}N_3O_2$ . —  $(CH_3)_2$ , or,  $C_6H_5N_2 \cdot N(CH_3) \cdot C(CH_3)_2 \cdot C(=O)$ . — *Colorl. cryst.*—*Sol. W.*, A.—*Melt.* 106–107° C.—*Antipyr.*; *Anod.*—*Uses:* Acute fevers, influenza, rheum., headache, tabetic pains, asthma, gastralgia, toothache, &c.—*Dose* 5–8 grains (0.3–0.5 Gm.).

**Pyramidon Camphorate, Acid** (30)

$C_{13}H_{17}N_3O_4$ . —  $C_{10}H_{16}O_4$ . — Wh., *cryst. powd.*—*Sol.*, eas. hot & cold W., A., E.—*Melt.* 86° C.—*Antihidrotic.*—*Uses:* Chron. febrile conditions, & in phthisis to relieve excessive sweating.—*Dose* 8–15 grains (0.5–1 Gm.).

**Pyramidon Camphorate, Neutral** (35)

$(C_{13}H_{17}N_3O_2)_2 \cdot C_{10}H_{16}O_4$ . — Wh., *cryst. powd.*—*Sol.*, eas. cold & hot W., A., E.—*Melt.*, *abt.* 85° C.—*Antipyr.*—*Uses:* Chron. febrile conditions, phthisis, &c.—*Dose* 8–12 grains (0.5–0.75 Gm.).

**Pyramidon Salicylate** (30)

$C_{13}H_{17}N_3O_4 \cdot C_7H_5O_2$ . — Wh., *cryst. powd.*—*Sol.*, eas. W., A.—*Melt.* 74° C.—*Antirheum.*; *Antineural.*—*Uses:* Acute & chron. articular rheum., gout, neural.—*Dose* 8–12 grains (0.5–0.75 Gm.).

**Pyrantin**

(Paraethoxyphenylsuccinimide).— $(CH_2CO)_2 \cdot N \cdot C_6H_4 \cdot OC_2H_5$ . — By fusing paranitrophenetol hydrochloride w. succinic acid, & extracting melt w. boil. A.—*Colorl. need.*—*Sol.* A.; v. diffic. in cold W., more readily in boil. W.; *insol. E.*—*Melt.* 155° C.—*Antipyr.*—*Dose* 15–45 grains (1–3 Gm.) p. d.

**Pyrantin Soluble**

Sodium salt of pyrantin.—*Sol. W.*—*Antipyr.*—*Dose* 15–45 grains (1–3 Gm.) daily.

*Pyrazine.*—see **Antipyrine**

*Pyrazine Hexahydrate.*—see **Piperazine**

*Pyrazoline.*—see **Antipyrine**

*Pyrethrum.*—see **Parthenium**

**Pyrethrum.**—U. S. P.

(Pellitory; Spanish Pellitory; Spanish Chamomile; Boetian; Longwort).—Root of *Anacyclus Pyrethrum*, De C. Compositae.—*Habit.*: North Africa.—*Etymol.*: “*Anacyclus*,” fr. “*anathocyclus*,” the old generic name fr. Grk. “*a*,” not, “*anthos*,” flower, & “*kyklos*,” a circle, i.e., the outer circle of ovaries is without flowers. “*Pyrethrum*” fr. Grk. “*pyr*,” fire, & “*athros*,” strong, i.e., portions of the plants of the species have a burning taste. “*Pellitory*” is a corruption of “*parietary*,” fr. Lat. “*paries*,” a wall, i.e., it grows on walls.—*Constit.*: Volat. oil; pyrethrin.—*Sialag.*; *Rubefac.*—*Uses:* Neural., toothache, rheum., relaxed uvula, &c.; root also chewed.—*Doses:* Alcoh. extr., 4–8 grains (0.25–0.5 Gm.).—*Fld. extr.*, 30–60 m (2–4 Cc.).

**Pyrethrum Flowers**

(Persian Insect Powder; Persian Pellitory).—Flowers of *Pyrethrum roseum*, M. B., & *Pyrethrum carneum*, M. B. Compositae.—*Habit.*: Persia; Western Asia.—*Etymol.*: See preceding.—*Constit.*: Volat. oil; pyrethrosin; pyrethrosinic acid.—*Uses:* Insecticide.

**Pyridine Merck.**—Medicinal (4)

By dry distil. of organic comp'ds cont'g nitrogen.— $C_5H_5N$ .—*Colorl. liq.*; empyreumatic odor, sharp taste.—*Sp. Gr.* 1.0033 at 0° C.—*Misc. W.*, A., E., benzin, fatty oils, &c.—*Boil.* 116–118° C.—*Respiratory Sed.*; *Antigonorr.*; *Antisept.*—*Uses:* Asthma, angina pectoris, dyspnea, &c. Contraind. in heart weakness.—*Techn.*, as solvent for anhydrous mineral salts.—*Dose* 2–10 m (0.12–0.6 Cc.) sev. t. p. d. in W.—*Us'ly* by inhalation, 45–75 m (3–5 Cc.), evaporated spontaneously in room, the inhalations lasting 1/2 hr. each, being repeated 3 t. p. d. As urethral inj., 0.3% solut.; & as paint in diphth., a 10% solut.

**Pyridine Chloriodide Merck** (45)

(Chloriodopyridine). —  $C_5H_5CHN$ . — Yellow, *cryst. powd.*—*Sol. A.*

*Pyridine Chloromethylate.*—see **Pyridine Methylchloride**

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Pyridine Citrate Merck.** Cryst. (12)  
 $C_8H_8N_2C_6H_5O_7$ .—Wh. cryst.—*Sol.* W., A.

**Pyridine Methylchloride Merck** (75)  
 (Pyridine Chloromethylate).— $C_6H_5NCl$ , or,  $C_6H_5NCH_2Cl$ .—Wh. cryst. need.—*Sol.* W., A.

**Pyridine Nitrate Merck.**—Cryst. (12)  
 $C_5H_5N.HNO_3$ .—Wh. cryst.—*Sol.* W., A.

**Pyridine Sulphate Merck.**—Cryst. (10)  
 $C_5H_5N.H_2SO_4$ .—Deliq. wh. cryst.—*Sol.* W., A.  
 —*Caut.* Keep well stoppered.

**Pyroacetic Ether.**—see **Acetone**

**Pyrocatechin Merck.** Resublimed (16)  
 (Orthoxybenzene; Pyrocatechuic or Oxyphehic Acid; Catechol).—Occurs in nature; but us'y prep. fr. guaiacol. — $C_6H_4O_2$ , or,  $C_6H_3(OH)_2$ .  
 —*Color.* Cryst.—*Sol.* W., A., E., B., C.—*Melt.* 104° C.—*Boil.* 240–245° C.—*Antisept.*: Antipyr.  
 —*Uses.* *Extern.*, solut. & salve for dress. wounds, burns, injuries, &c. More powerful antiseptic than carbolic acid, resorcinol or hydroquinone.  
 —*Techn.*, in photography.

**Pyrocatechin dimethyl Ester.**—see **Veratrole**

**Pyrocatechin methylbenzyl Ester.**—see **Brenzcain**

**Pyrocatechin monoethyl Ester.**—see **Guaethol**

**Pyrocatechin monomethyl Ester.**—see **Guaiacol**

**Pyrocin.**—see **Acetylphenylhydrazine**

**Pyroform**  
 Obt. by action of oxidized pyrogallol on bis-muth oxyiodide.—Gray powd.—*Insol.* in ord. solvents.—*Uses*: As of pyrogallol, in skin dis.

**Pyrogallol Merck.**—Resublimed (3)  
 (Pyrogallie Acid).—Fr. gallic acid by heat.— $C_6H_3O_3$ , or  $C_6H_2(OH)_3$  [1 : 2 : 3].—White, lustr., bitter cryst.—*Sol.* 1.6 W., 1 A., & 1.1 E. at 25° C.; v. sol. boil. W. & boil. A. (U. S. P.).—*Melt.* 132° C.—*Boil.* 210° C.—*Uses*: *Extern.*, in psori. & skin dis.; oint. (1 in 10).—*Techn.*, in photo., in cosmetics, in manuf. of gallein, & in gasanalysis as reagent.—*Caut.* Keep fr. light.

**Pyrogallol Disalicylate.**—see **Saligallol**

**Pyrogallol Monoacetate.**—see **Eugallol**

**Pyrogallol Oxidized Merck** (5)  
 (Pyraloxin).—Oxidation prod. of pyrogallol, obtained by action of air & vapor of ammonia.—Brown powd.—Recomm. by Unna as stable, & efficient succed. for pyrogallol, & free fr. toxic & irritating effects of latter.—*Uses*: Psoriasis, chron. eczema, lupus erythematosus, &c.—*Appl.*, in 10% oint. w. petrolatum & lanum.

**Pyrogallolphthalein.**—see **Gallein**

**Pyrogallol Triacetate.**—see **Lenigallol**

**Pyrola**  
 (Roundleaved Wintergreen; False Wintergreen; Canker Lettuce; Shin Leaf).—Herb of *Pyrola*

*rotundifolia*, L. Ericacea.—*Habit.* Europe; Asia, northern North America.—*Etymol.*: Lat. "pyrus," pear tree, i. e., the leaves resemble those of the pear tree.—Lat. "rotundus," round, & "folium," leaf, referring to the shape of the leaf.—*Consist.* Arbutin; ericolin, resin; ursonic tannin, gallic & malic acids; volat. oil; coloring matter; gum, &c.—*Diur.*: Rubefac.; Tonic; Astring.; Antispasmodic.—*Uses*: Gravel, convuls., epilepsy, uter. dis., & as appl. to ulcers, sores, tumors, &c.—*Dose* 5–60 grains (0.3–4 Gm.).

**Pyrolusite.**—see **Manganese Dioxide, Natural**

**Pyromucic Aldehyde.**—see **Furfural**

**Pyrosal** (20)

(Antipyrine Salicylacetate, or Acetylsalicylate).— $C_9H_8O_5.C_{11}H_7N_2O_2$ .—*Color.* leaflets or cryst.; acid taste.—50% antipyrine; 37% salicylic acid.—*Sol.*, diffie. W., A., E.—*Melt.* 149–150° C.—*Antipyr.*—*Uses*: Pleurisy, polyarthritis, migraine, &c.—*Dose* 8 grains (0.5 Gm.).

**Pyrosulphuric Oxychloride.**—see **Pyrosulphuryl Chloride**

**Pyrosulphuryl Chloride** (12)

(Disulphuryl Chloride; Pyrosulphuric Oxychloride; Chlorosulphonic Anhydride).—Fr.  $SO_3$  by  $PCl_5$ ,  $S_2O_5Cl_2$ , or,  $Cl_2SO_5O.SO_2Cl$ .—*Color.*, mobile, v. refractive, fum. liq.—*Sp. Gr.* 1.858 at 0° C.—*Decomp.* by W.—*Boil.* 116° C.

**Pyroxylin**

(Collodion Cotton; Colloxylin; Soluble Gun Cotton; Xyloidin; Collodion Wool).—Fr. purified cotton, by nitric & sulphuric acids.—A mixt. of cellulose nitrates consist. chiefly of nitrocellulose  $C_{12}H_{16}(ONO_2)_4O_6$ .—Wh., flossy subst.; poss. physical appearance of ordinary cotton.—*Sol.* 25 parts of mixture of 1 vol. A. & 3 vol. E.; also acetone, glae. acetic acid.—*Uses*: Surg., photo., & techn.—*Caut.* Can be shipped with safety only when wet w. 30–33% water.

**Pyrrhol.**—see **Pyrrrol**

**Pyrrrol Merck** (220)

(Pyrrhol).—Fr. bone-tar by fractional distil. w. sulphuric acid.— $C_4H_5N$ , or,  $NH(CH:CH)_2$ .—Yellowish liq.; hot, pung. taste.—*Sp. Gr.* 0.9752 at 12.5° C.—*Sol.* A., E.—*Boil.* 133° C.

**Pyrrrol Red Merck** (250)

$C_{12}H_{14}N_2O$ .—Brownish-black, amorph., insol. powd.—Obtained by boiling pyrrrol w. acids.

**Pyrrrol Tetriodide.**—see **Iodol**

## Q

**Quamacai**

(Quamacai Cipo).—Wood of *Paullinia thalictrifolia*, Juss. Sapindaceae.—*Habit.*: Brazil.—*Etymol.*: "Quamacai" is the Brazilian name of the plant.—*Uses*: In rheum. & beri-beri.—*Extern.*, in diaphor. baths.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Quassia.**—*U. S. P.*

(Bitter Ash; Bitterwood Tree).—Wood (& bark) of *Pierasma excelsa* (Swartz) Planchon, Jamaica Quassia (& of Quassia amara, L., true Surinam Quassia). *Simarubac.*—*Habit.*: Jamaica; West Indies generally; Central America.—*Etymol.*: “Quassi,” “Quassy,” or “Quash,” name of Surinam negro slave who first discovered the febrif. properties, & employed the drug. Grk. “pikros,” bitter. Lat. “excelsus,” surpassing, *i.e.*, highest spec. of Genus.—*Bark*: Flat or curved pieces,  $\frac{1}{5}$  in. (5 Mm.) or more thick; extern., dark-gray; inner surface, yellowish-white & smooth; inodor; very bitter.—*Wood*: See *U. S. P.*—*Constit.*: *Wood*: *Pierasinin*,  $C_{35}H_{46}O_{10}$ ; quassin,  $C_{10}H_{12}O_{39}$  (or,  $C_{22}H_{32}O_{10}$  [?]); quassol,  $C_{40}H_{70}O_{11}H_2O$ ; alkaloid; resin; mucilage; pectin.—*Bark*: Quassin; alkaloid; resin; pectin. (Quassia amara contains 4 bitter principles; *Picrena excelsa* contains only 2); quassol.—*Tonic Bitter*; *Febrif.*; *Anthelmint.*; *Antiparasitic.*—*Uses*: To invigorate digestive organs, & create appetite; chron. constip., worms & fever.—*Techn.*, as fly poison, & as surrogate for hops.—*Doses*: *Wood*: 15–60 grains (1–1 Gm.), usually as decoct. or tinct.—*Alcoh. extr.*, 1–5 grains (0.06–0.3 Gm.).—*Fld. extr.*, 10–30  $\text{m}$  (0.6–2 Cc.).—*Tinct.*, 1–3 fl. dr. (4–12 Cc.).—*Bark*: 15–30 grains (1–2 Gm.).

**Quassin Merck.**—Pure, cryst. (1283

(Quassine).—Bitter prin. fr. Jamaica & Surinam Quassia.— $C_{10}H_{12}O_{39}$  or,  $C_{22}H_{32}O_{10}$  (?).—Wh., opaque, intens. bitter cryst.—*Sol.* A., C.; sl. in W.—*Melt.*, abt. 210° C.—*Tonic*; *Stimulant.*—*Uses*: Invigorate digestive org.—*Dose*  $\frac{1}{30}$ – $\frac{1}{3}$  grain (0.002–0.02 Gm.) before meals.

**do. Merck.**—Pure, powder (240

Pure, amorph., bitter principle found besides the cryst. quassin in wood of *Pierasma excelsa*.—Light-yellow powd.—*Sol.* A.—*Uses* & *Doses*: As of quassin, cryst.

**do. Merck.**—Purified, lumps & powder (120

Mixt. of quassins.—Light-brown lumps or fine powd.—*Sol.* A.—*Uses* & *Doses*: As of French quassin.

**do. Merck.**—French (25

Light-yellow, amorphous powd., or lumps; odorl. & v. bitter.—Specially prepared for the French market.—*Sol.* W., E.; v. *sol.* A.—*Bitter Tonic*; *Appet.*—*Dose*  $\frac{1}{2}$ – $2\frac{1}{2}$  grains (0.1–0.15 Gm.).

**Quebrachamine Hesse-Merck** (7000

Fr. bark of *Aspidosperma Quebracho-blanco*, Schlecht.—White to yellowish cryst., bitter scales.—*Sol.* A., E. & C.—*Melt.* 142° C.

**Quebrachamine Sulphate Hesse-Merck** (7000

Wh. to yellowish cryst.—*Sol.* W., A.

**Quebrachine Hesse-Merck** (5000

Fr. bark of *Aspidosperma Quebracho-blanco*, Schlecht.— $C_{21}H_{26}N_2O_3$ .—Colorl. to yellowish cryst.; darken on expos.; bitter taste.—*Sol.* C.,

hot A., hot E., amyl alc.—*Melt.* 214–216° C., w. decomp.—*Antiper.*; *Tonic.*—*Uses*: Asthma & dyspnea fr. heart dis.—*Dose* 1–2 grains (0.06–0.12 Gm.) several t. p. d., in powd. & pills.

**Quebrachine Hydrochloride Hesse-Merck** (5000

$C_{21}H_{26}N_2O_3.HCl$ .—Wh. to yellowish cryst.—*Sol.*, sl. W., A.—*Dose*  $\frac{3}{4}$ – $1\frac{1}{2}$  grains (0.05–0.1 Gm.).

**Quebracho.**—see *Aspidosperma***Quebracho Colorado**

(Red Quebracho).—Wood of *Loxopterygium Lorentzii*, Grisebach. *Anacardiaceae.*—*Habit.*: Argentine Republic.—*Etymol.*: Portuguese “quebrachacho,” axe-breaker, *i.e.*, the wood is exceedingly hard; Spanish “colorado,” colored.—*Constit.*: Tannin; coloring matter; loxopterygine.—*Antasthmatic*; *Astring.*; *Antispasm.*, in dysent. & asthma.—*Uses*: As of *aspidosperma*, but is weaker in action.—*Techn.*, in dyeing.—*Dose*: *Aqu. extr.*, 3–5 grains (0.2–0.3 Gm.).

**Quercetin Merck** (450

(Meletin; Quercetin Acid).—Fr. quercitrin, by dil. sulphuric acid.— $C_{15}H_{10}O_7 + 2H_2O$ .—Brown, cryst. powd.—*Sol.*, in alk. solut.; sl. in W.—*Uses*: Dye.

**Quercimelin.**—see *Quercitrin***Quercit Merck** (450

(So-called “Acorn Sugar”).—*Constit.* of acorns.— $C_6H_7(OH)_5$ .—Colorl. cryst.—*Sol.* W., A.—*Sp. Gr.* 1.5806 at 15° C.—*Melt.* 234° C.

**Quercitannin.**—see *Acid Quercitannic***Quercitrin Merck** (75

(Quereimelin; Quercitrinic Acid).—Glucoside (yellow coloring matter) fr. bark *Quercus tinctoria*, Bartram (Black Oak).— $C_{21}H_{32}O_{13} + 2H_2O$ .—Yellow, cryst. powd.—*Sol.* A., amyl alc., alk. solut., acetic acid; sl. W.—*Melt.* 168° C.—*Astring.*; *Tonic*.

**Quercus.**—*U. S. P.*

(White Oak).—Dried bark of *Quercus alba*, L., fr. trunks & branches 10–25 yrs. old, & deprived of periderm (also fr. o. species of *Quercus*). *Fagaceae*. *Cupuliferae.*—*Habit.*: Canada, & eastern U. S.—*Etymol.*: Celtic “quer,” handsome, & “cuez,” tree, *i.e.*, handsome tree. “Alba,” white, refers to the whitish appearance of the bark.—*Constit.*: Quercitanic acid; oak-red; resin; pectin; levulin; quercit; ellagic acid; gallic acid.—*Astring.*; *Tonic*; *Antiper.*—*Uses*: *Catar. diar.*, *maras.*, *intermit. fever.*, *leucor.*, &c.—*Doses*: *Extr.*, 3–10 grains (0.2–0.6 Gm.).—*Fld. extr.*, 15–60  $\text{m}$  (1–4 Cc.).

**Quercus Pedunculata**

(British Oak; English Oak; White Oak).—Bark of *Quercus pedunculata*, Ehrhart, & *Q. sessiliflora*, Martyn (*Q. robur*, Willd.). *Cupuliferae.*—*Habit.*: Europe.—*Etymol.*: “Quercus,” see preceding. “Pedunculata,” fr. Lat. “pedunculus,” diminutive of “pes,” foot, *i.e.*, having a short

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



peduncle or foot. "seu. filifera" fr. lat. "sessilis, sedere," to sit, & "flora," flower, i.e., inserted directly on the axis.—*Constit.*—Tannin,  $C_{17}H_{16}O_4$ , gallic acid, quercin, quercit.—*Uses*.—Astring.—*Techn.*, in tanning.—*Dose* 1-2 fl. oz. (30-60 Gm.) of 10-20-100 decoct.

# Quillaja.—U. S. P.

(Soap Bark; Quillaja, Panama Bark, China or Munillo Bark).—Dried bark of Quillaja Saponaria, Molina, Roemer, deprived of its periderm.—*Habit*.—South America (Peru; Chili), cult. in Northern Hindustan.—*Typical*.—Fr. Chilian "quilla," "quillay," "enllay," or "quillaián," to wash; saponaria fr. lat. "sapo," soap, i.e., soapy.—Large flat pieces abt.  $\frac{1}{2}$  in (5 Mm) thick; extern., brownish-white, inner surface, whitish, smooth, splintery fract.; inodor.; persist. acid taste; dust very sterutatory; the infus. foams like soap water.—*Constit.*: Quillaic acid,  $C_{50}H_{90}O_{10}$ ; quillaia-sapotoxin,  $C_{14}H_{24}O_{16}$ ; tannin.—*Extractor*.: Stim.; Diuret.; Irrit.; Detergent; Stermit.—*Uses*.: *Intern.*, in bronch.—*Extern.*, chron. ulc., eczema, hyperidrosis, & skin dis.—*Techn.*, in manuf. of sapotoxin, saponin, & quillaic acid; also in mineral-water industry, in shampoo liquids, &c., as foam producer.—*Doses*: 15-30 grains (1-2 Gm.) in powd. or infus.—*Aqu. extr.*, 2-5 grains (0.12-0.3 Gm.).—*Eth. extr.*, 15-30 fl. (1-2 Ce.).—*Tinct.* (1:5 alc.) employed as emulsifiant for oils, balsams, & resins, & to produce foam in soda-water, &c.

# Quinaldine Merck (125)

(Alphamethylquinoline; Chinaldine).—Fr. aniline w. paraldehyde & hydrochloric acid, by heat.— $C_{10}H_9N$ , or,  $CH_3.C_6H_4.CH=CH$ .—Oily, yellowish liq.; odor of quinoline; darkens to reddish-brown in air.—Sp. Gr. 1.052 at 15° C.—*Sol.* E., C.; sl. in W.—*Boil.* 240-246° C.

# Quinaldine Sulphate Merck (150)

$C_{10}H_9N.H_2SO_4$ .—Reddish, cryst. powd.—*Sol.*, eas. W.—*Melt.* 211-213° C.

# Quinaldylene phthalid.—see Quinoline Yellow, Alcohol Soluble

# Quinalgen.—see Analgen

# Quinaphthol (150)

(Quinine Betanaphtholmonosulphonate; Chinaphthol).— $C_{20}H_{21}N_2O_2.(OH.C_6H_4.SO_3H)_2$ .—Yellow, cryst. powd.—*Sol.*, sl. hot W. & A.—*Melt.* 185-186° C.—42% quinine.—*Uses*: Typhoid, intestinal tuberculosis, dysent., acute artic. rheumat., &c.—*Dose* 5-15 grains (0.3-1 Gm.) single; 30-45 grains (2-3 Gm.) p. d.

# Quinaseptol.—see Diaphtol

# Quince, Bengal.—see Aegle

# Quince Seed.—see Cydonia

# Quinetum Merck.—Pure (20)

(Chinetum).—Mist. of alkaloids in varying proportions, as they occur naturally, fr. bark Cin-

chona succirubra, Pavon.—Amorph., grayish-white to brownish powd., 50 to 70% of cinchonidine w. quinine, cinchonine, & amorph. bases.—*Sol.*, dil. acids; sl. in W.—Antiperiodic.—*Uses*: Malaria & intermitt. fevers.—*Dose* 1-8 grains (0.06-0.5 Gm.).

# Quinetum Sulphate Merck (25)

Neutral sulphate of preceding.—Grayish-wh. to brownish powd.—*Sol.* W.

# Quinhydrone Merck (70)

React.-prod., aqu. solut., quinone & hydroquinone— $C_6H_4(OH)_2.C_6H_4O_2$ .—Green prisms; red-brown by transmitted light; metal. luster; odor like quinone; pungent taste.—*Sol.*, hot W., A., E., amm.; sl. cold W.

# Quinic Acid Anhydride.—see Sidonal, New

# Quinidine Merck.—Pure, cryst. & precip. (17)

(Chinidine; Conchicine; Beta-quinine; Cinchotine; Chinotine; Pitayin).—Alkaloid fr. some spec. of Cinchona bark.  $C_{20}H_{21}N_2O_2 + 2\frac{1}{2}H_2O$ .—Colorl., lustr. prisms; effloresc. on expos.—*Sol.*, abt. 20 A., 30 E., 2,000 W.—*Melt.* 168-170° C.—Antiper.; Antipyr.; Antisep.; Tonic.—*Uses*: Remit. & intermitt. fevers, espec. of children. Substit. for quinine. Salts less agree. to take, but more prompt in action.—*Dose*: Children,  $\frac{1}{2}$ -5 grains (0.03-0.3 Gm.); adults, 3-30 grains (0.2-2 Gm.), in suspension in syrup.—*Max. D.* 40 grains (2.6 Gm.), single.

# Quinidine Bisulphate Merck (20)

(Acid Quinidine Sulphate).— $C_{20}H_{21}N_2O_2.H_2SO_4 + 4\frac{1}{2}H_2O$ .—Colorl. cryst.; bitter taste.—*Sol.* W., with fluoresc.—*Dose* 5-15 grains (0.3-1 Gm.).

# Quinidine Citrate Merck (30)

$C_{20}H_{21}N_2O_2.C_6H_5O_7$ .—Wh. cryst.—*Sol.* A.—*Dose*  $\frac{11}{2}$ -12 grains (0.1-0.75 Gm.).

# Quinidine Hydrobromide Merck (30)

$C_{20}H_{21}N_2O_2.HBr$ .—Wh. cryst.—*Sol.* W., A.

# Quinidine Sulphate Merck (15)

(Neutral Quinidine Sulphate).— $(C_{20}H_{21}N_2O_2)_2.H_2SO_4 + 2H_2O$ .—Wh. need.; v. bitter taste.—*Sol.* 8 A., 14 C., 100 W.—Antipyr.; Antiper.; Antisep.; Tonic.—*Doses*: As tonic:  $\frac{1}{2}$ -3 grains (0.03-0.2 Gm.) 3 t. p. d.; as antiper.: 20-60 grains (2-4 Gm.); for a cold: 5-10 grains (0.3-0.6 Gm.).—*Caut.* Prone to cause collapse in children, hence give cautiously.

# Quinidine Tannate Merck (15)

Amorph., yellow powd.; tastel.—*Sol.*, sl. A.—*Uses*: *Intern.*, dyspep., diar., albumin., malaria.—*Dose* 3-12 grains (0.2-0.8 Gm.).—*Veter.*, erysip. of swine, 25 grains (1.6 Gm.) 3 t. p. d.

# Quinine Merck.—Alkaloid (11)

Alkaloid fr. Cinchona bark.— $C_{20}H_{21}N_2O_2 + 3H_2O$ , or,  $CH_3O.C_6H_4.C_3H_7N.CH_2.CO.H.CH_2.CH(CH_2)_2.CH_2.CH_2.N.(CH_2)_2 + 3H_2O$ .—Bulky, wh., amor-

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



phous, or cryst. powd.; v. bitter taste.—*Sol.* E., C., B., carbon disulphide, benzin, oils, 6 A., 240 G., 2,000 W. at 15° C.; (1,550 W., 0.6 A., 1.3 E., 1.6 C., 212 G., 166 B., 3,150 solut KOH 1:20, & 1,810 ammonia water, at 25° C. When anhydrous, *sol.* 1,750 W., 0.6 A., 4.5 E., 1.9 C., 158 G., 120 B., 3,450 solut. KOH 1:20, & 1,810 ammonia water, at 25° C., U. S. P.).—*Melt.* 57° C.; when anhydr. (by heat. to 125° C.) 174.9° C. (U. S. P.).—*Antipy.*; *Antiper.*; *Antisep.*; *Emmen.*; *Ecbolic*; *Tonic*.—*Uses*: Reduce fever & hectic flush in plath.; yellow fever, typhus, & typhoid, remit. & intermit. fevers, malaria, amenor.; *antisep.* for intest. canal; hasten labor, & as general bitter tonic; locally, to prevent conception & as styptic. The salts are us'y prescribed. For hypodermic use, the bisulphate, ethylsulphate, quinate, hydrobromide, or carbamided hydrochloride is to be preferred.—*Dose* 2-15 grains (0.12-1 Gm.).—*Max. D.* 25 grains (1.6 Gm.) single; 50 grains (3.3 Gm.) p. day.—*Caut.* Keep in dark, well-stoppered bottles.

### Quinine Acetate Merck (12)

$C_{20}H_{24}N_2O_2 \cdot C_2H_3O_2$ .—Fine, wh. cryst.; acetic-acid odor.—*Sol.* 7 A. & hot W.—*Dose* 1-15 grains (0.06-1 Gm.).—*Caut.* Keep well stoppered.

### Quinine Albuminate Merck (40)

Yellowish-wh. scales.—*Sol.*, dil. hydrochl. acid, acid pepsin W.—*Tonic*.—*Uses*: Agrees w. delicate patients; nutrient as well as medicinal.—*Dose* 1-15 grains (0.06-1 Gm.).

### Quinine Anhydro-oxyethylenediphosphate.—see Quininephytin

### Quinine Anisate Merck (20)

(Anetholquinine). —  $(C_{20}H_{24}N_2O_2)_2 \cdot C_{10}H_{12}O + 2H_2O$ .—Colorl. cryst.—*Sol.* E., hot A.—*Uses*, &c.: As of the sulphate.

### Quinine Antimonate Merck (20)

Wh. powd.—*Insol.* W.—Combined Febrifuge, Lax., & Diaph.—*Uses*: Rheum., gout, herpes, pernicious intermit. fever.—*Dose*  $1\frac{1}{2}$ -7 grains (0.1-1 Gm.).

### Quinine Arrhenalate.—see Quinine Methylarsenate

### Quinine Arsenate Merck (11)

$2(C_{20}H_{24}N_2O_2) \cdot H_3AsO_4 + 8H_2O$ .—Wh. cryst.—*Sol.*, hot W.—*Antiperiodic*.—*Uses*: Persistent intermit. fever.—*Dose*  $\frac{1}{15}$ - $\frac{1}{8}$  grain (0.004-0.008 Gm.).—*Max. D.*  $\frac{1}{8}$  grain (0.008 Gm.), single.—*Antid.*, emetics, stomach siphon, hot milk & water w. mustard, then milk w. magnesia, saccharated iron oxide, dialyzed iron, &c.—*Caut.* Poison!

### Quinine Arsenite Merck (11)

Wh. powd.—13%  $As_2O_3$ .—*Sol.* A.; v. sl. W.—*Antimalarial*.—*Accord.* to Bénakz, may be given in comparatively large doses (2-4 grains [0.12-0.25 Gm.]) ?), as quinine and arsenic are physio-

logically antagonistic.—*Dose*  $\frac{2}{3}$  grain (0.04 Gm.) 3 t. p. d.

### Quinine Benzoate Merck (15)

$C_{20}H_{24}N_2O_2 \cdot C_7H_5O_2$ .—Wh. cryst.—*Sol.* A., 350 W.—*Uses*, &c.: As of the sulphate.—*Dose* 2-20 grains (0.12-1.3 Gm.).

### Quinine Betanaphtholmonosulphonate.—see Quinaphthol

### Quinine Bimuriate.—see Quinine Dihydrochloride

### Quinine Biniodate.—see Quinine Diiodate

### Quinine Bisulphate (5)

(Acid Quinine Sulphate).— $C_{20}H_{24}N_2O_2 \cdot H_2SO_4 + 7H_2O$ .—58.12% quinine.—Colorl. cryst.; effloresces rapidly & become opaque on expos.—*Sol.* 8.5 W., 18 A., 1770 E., 920 C., 18 G., at 25° C.; 0.68 W. at 80° C.; 0.5 A. at 60° C. (U. S. P.).—*Melt.*, abt. 160° C., w. decomp.—*Uses*: *Intern.*, as of the sulphate, but used also subcut.—*Extern.*, chiefly in solut. for irrigating nose in hay-fever.—*Dose* 1-30 grains (0.06-2 Gm.).—*Nasal Inj.*, in hay-fever, 0.2% aq. solut.

### Quinine Bitartrate Merck (15)

$C_{20}H_{24}N_2O_2 \cdot C_4H_6O_6 + H_2O$ .—Wh. cryst.—*Sol.*, sl. W. & A.

### Quinine Borate Merck (15)

$C_{20}H_{24}N_2O_2 \cdot H_3BO_3(?)$ .—Wh. cryst.—*Sol.* W., A.—*Uses*, &c.: As of the sulphate.

### Quinine Borsalicylate Merck (30)

Wh., diffic. sol. powd.—*Uses*, &c.: As of the salicylate.

### Quinine Bromate Merck (25)

$C_{20}H_{24}N_2O_2 \cdot HBrO_3$ .—Wh. cryst.—*Sol.* W., A.—*Uses*, &c.: As of the sulphate.

### Quinine Bromide.—see Quinine Hydrobromide

### Quinine Cacodylate Merck (30)

$C_{20}H_{24}N_2O_2 \cdot (CH_3)_2AsO_2H$ .—Wh. powd.—*Sol.*, cold W. & A.

### Quinine Camphorate Merck (20)

$(C_{20}H_{24}N_2O_2)_2 \cdot C_{10}H_{16}O_4$ .—Wh. powd.—*Sol.* A.—*Uses*, &c.: As of the sulphate.

### Quinine Carbolate.—see Quinine Phenate

### Quinine Carbonate Merck (35)

$C_{20}H_{24}N_2O_2 \cdot H_2CO_3 + H_2O$ .—Colorl. cryst.—*Sol.* W., A.; in acids w. effervesc.; *insol.* E.—Effloresc. in air; above 110° C., decomp. w. evol. of  $CO_2$ .

### Quinine Carbonic Ether (or Ester).—see Equinine

### Quinine Chlorate Merck (20)

$C_{20}H_{24}N_2O_2 \cdot HClO_3 + \frac{1}{2}H_2O$ .—Wh. cryst.; explode at h. temp.—*Sol.* W., A.—*Uses*: Malarial & o. fevers w. anginal symp.

### Quinine Cinnamate Merck (20)

$C_{20}H_{24}N_2O_2 \cdot C_9H_7O_2$ .—Wh. cryst.—*Sol.* A.—*Uses*, *Doses*, &c.: As of the sulphate.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Quinine Citrate Merck** (11)  
 $(C_{20}H_{24}N_2O_2 \cdot C_6H_5O_7 + 7H_2O)$ —Wh. cryst.—*Sol.* A, hot W.—*Uses*, &c. As of the sulphate.—*Dose* 2–20 grains (0.12–1.3 Gm.).

**Quinine Citrate with Iron Pyrophosphate Merck** (8)  
 Yellowish-green scales.—*Sol.* W.—*Uses*. Malarial affect. w. chlorosis, anemia, &c.

**Quinine Citrosalicylate Merck** (25)  
 White powd.—*Sol.* A.—*Uses*. Especial value in malarial migraine.

**Quinine Dibromide**.—see **Quinine Dihydrobromide**

**Quinine Dibromosalicylate, Acid.**—see **Bromoquinol**

**Quinine Dichloride**.—see **Quinine Dihydrochloride**

**Quinine Dihydriodide Merck** (20)  
 (Quinine "Diiodide").— $C_{20}H_{24}N_2O_2 \cdot 2HI + 5H_2O$ .—Yellowish, wh. powd.—*Sol.* W., A.—*Uses*, &c.: As of the sulphate.

**Quinine Dihydrobromide Merck** (20)  
 (Quinine "Dibromide"; Acid Quinine Hydrobromide, or Bihydrobromide).— $C_{20}H_{24}N_2O_2 \cdot 2HBr + 3H_2O$ .—Yellowish powd.—*Sol.* W., A.—*Uses*. Chiefly hypoderm. in chron. malaria.—*Dose* 2–20 grains (0.12–1.3 Gm.) in 20 M (1.3 Cc.) water, every second day, by inj.

**Quinine Dihydrobromoguaiacolate**.—see **Guaiaquinol**

**Quinine Dihydrochloride Merck** (11)  
 (Quinine "Dichloride," or Bimuriate).— $C_{20}H_{24}N_2O_2 \cdot 2HCl + 2H_2O$ .—Wh. cryst.—*Sol.* W., A.—Well adapted to subcut inj., on account of solubility, partie. in whoop-cough.—*Dose*, by inj.,  $1\frac{1}{2}$  grains (0.1 Gm.) for each year of the child's age, in 25–30% solut., 2 t. p. d.

**Quinine Dihydrochloride, Carbamidated**.—see **Quinine & Urea Hydrochloride**

**Quinine Diiodate Merck** (35)  
 (Quinine Biiiodate).— $C_{20}H_{24}N_2O_2 \cdot (HIO_3)_2$ .—Wh., cryst. powd.—*Sol.* W.—*Dose*  $1\frac{1}{2}$  grains (0.1 Gm.) hypoderm.

**Quinine Diiodide**.—see **Quinine Dihydriodide; Quinine Iodohydriodide**

**Quinine Eosolate**  
 Neutral quinine salt of trisulphoacetylguaiacol. ( $C_{20}H_{24}N_2O_2 \cdot (C_6H_4SO_3)_3$ ).—Yellow, amorph., bitter powd.—*Sol.*, eas. A.; diffie. W.—*Febrif.*—*Uses*: Malaria, influenza.—*Dose* 8–10 grains (0.5–0.6 Gm.).

**Quinine Ethylsulphate Merck** (18)  
 (Quinine Sulphovinate, or Sulphethyrate).—Fr. hot alc. solut. of sodium sulphovinate & quinitesulphate.— $C_{20}H_{24}N_2O_2 \cdot C_2H_5SO_4$ .—Wh. cryst.—71% quinine.—*Sol.* 3 W.—*Uses*: Hypoderm.

in severe malarial fever.—*Dose* 3–8 grains (0.2–0.5 Gm.), hypoderm.

**Quinine Ferrichloride**.—see **Iron & Quinine Chloride, Ferric**

**Quinine Ferricyanide Merck** (15)  
 $C_{20}H_{24}N_2O_2 \cdot HFe(CN)_6 + \frac{1}{2}H_2O(?)$ .—Yellow cryst.—*Sol.*, v. sl. W.

**Quinine Ferrobromide**.—see **Iron & Quinine Bromide**

**Quinine Ferrochloride**.—see **Iron & Quinine Chloride, Ferrous**

**Quinine Ferrocitrate, Soluble**.—see **Iron & Quinine Citrate, Soluble**

**Quinine Ferrocyanide Merck** (11)  
 (Quinine Hydroferrocyanide).— $C_{20}H_{24}N_2O_2 \cdot H_4Fe(CN)_6 + 3H_2O(?)$ .—Yellow powd.—*Sol.* A.—*Uses*: Substit. for the sulphate & potass. ferrocyanide in fever & night sw. of phth.—*Dose* 5–10 grains (0.3–0.6 Gm.).

**Quinine Ferrioidide**.—see **Iron & Quinine Iodide**

**Quinine Ferrolactate**.—see **Quinine & Iron Lactate**

**Quinine Ferrosulphate**.—see **Quinine & Iron Sulphate**

**Quinine Ferrotannate**.—see **Quinine & Iron Tannate**

**Quinine Flower or Plant or Herb**.—see **Sabbatia**

**Quinine Formate Merck** (25)  
 $C_{20}H_{24}N_2O_2 \cdot CH_2O_2$ .—Wh., bitter cryst.—*Sol.* W., A., C.; alm. insol. E.—*Uses*, &c.: As of the sulphate. Well adapted for subcutaneous use.

**Quinine Gallate Merck** (28)  
 Yellowish cryst.—*Sol.*, hot W., A.—*Uses*, &c.: As of quinine tannate.

**Quinine Glycerinophosphate Merck** (25)  
 $C_2H_5O_2 \cdot PO_3 \cdot (C_{20}H_{24}N_2O_2)_2$ .—Wh. powd.—*Sol.*, hot W., A.—68% quinine.—*Tonic*.—*Uses*: Nervous debility following malaria.—*Dose*: As of quinine sulphate.

**Quinine Glycyrrhizinate Merck** (12)  
 Brown powd.—*Sol.* A.—25% quinine.—*Uses*: Particularly adapted for children, because of but v. sl. bitter taste.—*Dose*: As of the sulphate.

**Quinine Guaiacolbisulphonate**.—see **Guaiaquin**

**Quinine Hydriodide Merck** (13)  
 (Quinine "Iodide" or Hydriodate).— $C_{20}H_{24}N_2O_2 \cdot HI$ .—Yellowish powder.—*Sol.* A.—*Uses*: Chronic serof. affect.

**Quinine Hydrobromide Merck** (10)  
 (Quinine "Bromide" or Hydrobromate).— $C_{20}H_{24}N_2O_2 \cdot HBr + H_2O$ .—Silky, wh., light need.—*Sol.* 40 W., 0.67 A., 16 E., 8 G., v. eas. C. at 25° C.; 3 W. at 80° C.; (U. S. P.).—*Melt.*, abt. 200° C.—*Uses*, *Doses*, &c.: As of the sulphate.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Quinine Hydrochloride Merck** (10)  
(Quinine Hydrochlorate). —  $C_{20}H_{24}N_2O_2 \cdot HCl + 2H_2O$ . — Wh., silky need. — *Sol.* 3 A., 9 C.; 34 W. at 15° C.; (18 W., 0.6 A., 240 E., 0.8 C., 8 G. at 25° C., 0.4 W. at 80° C.; U. S. P.). — *Melt.* 190° C. — *Uses, Doses, &c.*: As of the sulphate.

**Quinine Hydrochlorophenate Merck** (20)  
(Quinine Phenolhydrochloride). — Wh. need. — *Sol.* W., A. — *Uses*: As of quinine sulphate.

**Quinine Hydrochlorophosphate Merck** (28)  
(Quinine Phosphochloride). —  $C_{20}H_{24}N_2O_2 \cdot HCl \cdot 2PO_4H_2 + aq.$  — Yellow cryst. — *Sol.* W. — *Uses*: Nerv. headache & malaria. — *Dose*: As of quinine sulphate.

**Quinine Hydrochlorosulphate Merck** (15)  
(Quinine Sulphochloride). —  $(C_{20}H_{24}N_2O_2)_2 \cdot HCl \cdot H_2SO_4 + 3H_2O$ . — Fine, wh. need. — 74% quinine. — *Sol.* 1 W. — *Uses*: Especially subcutan. in pernicious malaria. — *Dose* 15–30 m (1–2 Cc.) of 10–30% solut. daily. Less pain hypoderm. than any o. salt of quinine.

**Quinine Hydroferrocyanide.** — see **Quinine Ferrocyanide**

**Quinine Hydrofluoride Merck** (30)  
 $C_{20}H_{24}N_2O_2 \cdot HF$ . — Colorl. cryst. — *Sol.* A.

**Quinine Hydroiodide.** — see **Quinine Hydriodide**

**Quinine Hypophosphate Merck** (11)  
 $C_{20}H_{24}N_2O_2 \cdot H_2P_2O_6$ . — Wh. cryst. — *Sol.* A., W.

**Quinine Iodate Merck** (35)  
 $C_{20}H_{24}N_2O_2 \cdot HIO_3$ . — Wh. need. — *Sol.* A., W. — *Uses*: As of quinine diiodate.

**Quinine Iodide.** — see **Quinine Hydriodide**

**Quinine Iodohydriodide Merck** (28)  
(Quinine Diiodide). —  $C_{20}H_{24}N_2O_2 \cdot I_2 \cdot HI$ . — By precip. a solut. quinine bisulphate w. iodopotass. iodide solut. — Kermes-brown powd. — *Sol.* A. — *Uses*: Obstinate intermit. fevers, secondary & tertiary syphilitic symptoms. — *Extern.*, in enlarged spleen. — *Doses*: In syph., 40 grains (2.6 Gm.) p. d.; in malaria, 15–25 grains (1–1.6 Gm.).

**Quinine Iodosulphate Merck** (35)  
(Herapathite; Iodoquinine Sulphate). —  $IC_{20}H_{24}N_2O_2 \cdot 3H_2SO_4 \cdot 2HI \cdot H_2O + 3H_2O$ . — Dichroic cryst.; red or green w. reflected or transmitted light; polarize like tourmaline. — *Sol.*, boiling A.

**Quinine Lactate Merck** (11)  
 $C_{20}H_{24}N_2O_2 \cdot C_3H_5O_3$ . — Wh. cryst. — *Sol.* A., W. — *Uses & Doses*: As of the sulphate.

**Quinine Lactophosphate Merck** (25)  
Wh. powd. — *Sol.* A. — *Uses, &c.*: As of quinine sulphate.

**Quinine Lygosinate** (40)  
Quinine salt of diorthocumarketone (or, diorthoxydibenzylacetone), a condensation prod. of

salicylic aldehyde & acetone. —  $CO(CH_2CH_2C_6H_4 \cdot OH)_2 \cdot C_{20}H_{24}N_2O_2$ . — Bright, orange-red powd. — *Sol.* A., B., C.; v. diffic. in W. — *Melt.* 114° C. — *Bactericide*; *Styptic*. — *Uses*: Cancer, caries, gland. swellings, gangren. wounds, parenchym. hemorrhage, &c. — *Appl.*, dusting powd., in glycerine suspension, as 30% gauze, &c.

**Quinine Methylarsenate**  
(Quinine Monomethylarsenate or Arrhenalate). —  $(C_{20}H_{24}N_2O_2)_2 \cdot AsO_3 \cdot (OH)_2 \cdot CH_3$ . — Colorl., v. bitter cryst. — *Sol.*, v. diffic. cold, more eas. hot, W. — *Melt.* 139–141° C. — *Dose* 10 grains (0.6 Gm.) p. d.

**Quinine Monomethylarsenate.** — see **Quinine Methylarsenate**

**Quinine Nitrate Merck** (20)  
 $C_{20}H_{24}N_2O_2 \cdot HNO_3 + H_2O$ . — Colorl., bitter cryst. — *Sol.* W., A. — *Uses, &c.*: As of the sulphate.

**Quinine Oleate Merck.** — 10% & 25% (30)  
Exsiccated quinine in oleic acid. — Brown, thick liq. — *Sol.* A., E., oils, & oleic acid. — *Antipyr.*; *Antiper.* — *Uses*: Administration of quinine by injection inoint.

**Quinine Oxalate Merck** (15)  
 $C_{20}H_{24}N_2O_2 \cdot C_2H_2O_4$ . — Fine need. — *Sol.* A.; sl. W.

**Quinine Peptone Merck** (17)  
80% peptone w. 20% quinine. — Brown powd. — Nutrient; Tonic; *Antipyr.* — *Uses*: Convalesce. fr. severe sickness & defect. nutrition w. intermit. or remit. fever. — *Dose* 5–60 grains (0.3–4 Gm.).

**Quinine Phenate Merck** (15)  
(Quinine Phenolate, or Carbolate; Phenolquinine). —  $C_{20}H_{24}N_2O_2 \cdot C_6H_5O$ . — Wh. powd. — *Sol.* 80 A., 400 W. — *Uses, &c.*: As of the sulphate.

**Quinine Phenolhydrochloride.** — see **Quinine Hydrochlorophenate**

**Quinine Phenolsulphonate Merck** (13)  
(Quinine Sulphocarbolate). —  $(C_{20}H_{24}N_2O_2)_2 \cdot C_6H_4 \cdot OH \cdot SO_3H$ . — Wh. cryst. — *Sol.* A. — *Dose* 1–8 grains (0.06–0.5 Gm.).

**Quinine Phosphate Merck** (11)  
 $(C_{20}H_{24}N_2O_2)_2 \cdot H_2PO_4 + 8H_2O$ . — Fine, wh. need. — *Sol.* A., W. — *Uses & Doses*: As of the sulphate.

**Quinine Phtalate Merck** (35)  
 $(C_{20}H_{24}N_2O_2)_2 \cdot C_8H_6O_4$ . — Wh. powd. — *Sol.* A. — *Melt.* 70° C. — *Uses & Doses*: As of the sulphate.

**Quinine Phosphochloride.** — see **Quinine Hydrochlorophosphate**

**Quinine Quinate Merck** (35)  
 $C_{20}H_{24}N_2O_2 \cdot C_7H_{12}O_6 + 2H_2O$ . — Wh. to yellowish cryst.; v. bitter taste. — *Sol.* W. & A. — *Uses*: Chiefly by inj., inst. of o. Q. salts, on account of its great solubility. — *Dose*: As of the sulphate.

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Quinine Salicylate Merck** (10)

$C_{20}H_{24}N_2O_2 \cdot C_7H_7O$ .—Wh., bitter cryst.—*Sol.* 77 W., 11 A., 110 I., 37 C., 16 G.; at 25° C., 35 W. at 80° C.; 11 A. at 60° C.; (U. S. P.).—*Melt.* 183–187° C., w. decomp. (U. S. P.).—*Antisept.*, *Antipyr.*; *Audg.*—*Uses:* Typhoid, senetic, rheum., lumbago, & muscular pain fr. cold.—*Dose* 2–30 grains (0.12–2 Gm.).

**Quinine Salicylic Ester.**—see **Saloquinine**

**Quinine Santonate Merck** (120)

$C_{20}H_{24}N_2O_2 \cdot C_{15}H_{11}O_4$ .—Yellow, bitter powd.—*Sol.* A.

**Quinine Stearate Merck** (20)

$C_{20}H_{24}N_2O_2 \cdot C_{18}H_{36}O_2$ .—Wh., bitter cryst.—*Sol.* A.—*Uses:* As of the sulphate. *Us'y* employed exten. by injection; mixes readily w. oint. & is easily absorbed.

**Quinine Succinate Merck** (20)

$(C_{20}H_{24}N_2O_2)_2 \cdot C_4H_4O_4 + 8H_2O$ .—Bitter, wh. need.—*Sol.* A., boil. W.

**Quinine Sulphate Merck** (7)

$(C_{20}H_{24}N_2O_2)_2 \cdot H_2SO_4 + 7H_2O$ .—Wh., lustr., or shin., eas. compressible, fragile need.; v. bitter; absorbs moisture fr. damp air; darkens in the light.—*Sol.*, dil. acids, 3 boil. A., 50 boil. W., 40 G., 65 A.; 740 W. & 680 C. at 15° C.; (720 W., 86 A., 400 C., 36 G., at 25° C.; 45 W. at 80° C.; 9 A. at 60° C.; eas. sol. in mixt. 2 C. & 1 absol. A.; v. diffie. sol. E.; U. S. P.).—*Melt.*, when dried over  $H_2SO_4$  at 205° C.—*Antipyr.*; *Antiper.*; *Antisept.*; *Eumen.*; *Ecbolic.*; *Tonic.*; *Germic.*—*Uses:* *Intern.*, ad fevers, espec. intermit. & remit.; antisept., & bitter tonic; also in whoop-cough; bitter taste disguised by yerba santa, licorice, tannin, gynnema, or saccharin.—*Extern.*, on wounds, ulcers, &c.—*Doses:* As tonic:  $1\frac{1}{2}$ –2 grains (0.03–0.12 Gm.); as antiper.: 5–15 grains (0.3–1 Gm.) 6 to 12 hrs. before paroxysm; in pernicious fever: 30–75 grains (2–5 Gm.) within 12 hrs.; in neural.:  $1\frac{1}{2}$ –3 grains (0.1–0.2 Gm.) every 1 or 2 hrs.; as antipyr.: 15–30 grains (1–2 Gm.) in the course of 1 hr.; in hectic fever: 2–3 grains (0.12–0.2 Gm.) every 2 hrs.; as prophylactic in malaria, 5–8 grains (0.3–0.5 Gm.) 1–2 t. p. d.; as prophylactic in influenza: 8 grains (0.5 Gm.) every day or two. For children, per day  $\frac{3}{4}$ – $1\frac{1}{2}$ –3 grains (0.05–0.1–0.2 Gm.) per yr. of age, in 2 doses. As suppository 15–25 grains (1–1.6 Gm.).—*Techn.*, in brewing to obt. healthy yeast capable of vigorously fermenting, & in photography.—*Incomp.*, ammonia, alkalies, lime-water, tannin, Donovan's solution, iodine, potass. iodide, &c.—*Caut.* Keep dark & well stoppered.

**Quinine Sulphethylate.**—see **Quinine Ethylsulphate**

**Quinine Sulphocarbolate.**—see **Quinine Phenol-sulphonate**

**Quinine Sulphochloride.**—see **Quinine Hydrochlorosulphate**

**Quinine Sulphotartrate Merck** (18)

Fr. quin. sulphate & tartaric acid.—Wh. powd.—*Sol.*, hot W.—*Uses*, &c.: As of the sulphate.

**Quinine Sulphorinate.**—see **Quinine Ethylsulphate**

**Quinine Tannate Merck.**—Neutral, Tasteless (7)

$C_{20}H_{24}N_2O_2 \cdot 3C_{12}H_{10}O_4 + 8H_2O$ .—Yellowish-wh., tasteless powd.—30–32% quinine.—*Sol.*, partly A.—*Uses*, &c.: As of the sulphate; commended for children, particularly in diar. & whoop-cough, because tasteless. Less active than the more solub. salts.—*Dose* 1–10 grains (0.06–0.6 Gm.).

**Quinine Tartrate Merck** (15)

$(C_{20}H_{24}N_2O_2)_2 \cdot C_4H_6O_6 + H_2O$ .—Wh., cryst. powd.—*Sol.* A., hot W., & sl. in cold W.—*Uses*, *Doses*, &c.: As of the sulphate.

**Quinine Thiosulphate Merck** (20)

$C_{20}H_{24}N_2O_2 \cdot H_2S_2O_3$ .—Wh. cryst.—*Sol.* A.; sl. W.

**Quinine Urate Merck** (35)

$C_{20}H_{24}N_2O_2 \cdot C_5H_4N_4O_2$ .—Wh., cryst. powd.—*Sol.*, hot W., hot A.

**Quinine Valerate Merck.**—Cryst. & powd. (11)

$C_{20}H_{24}N_2O_2 \cdot C_5H_{10}O_2 + H_2O$ .—Colorl. cryst. or powd.; slight odor of valerian; bitter taste.—*Sol.* 5 A., 100 W., at 15° C.—*Melt.* 90° C.—*Nerve Tonic*, *Antipyr.*, &c.—*Uses:* Hemierania & debilitated or malarial condit. w. a nervous state or hyst.—*Dose* 2–6 grains (0.12–0.36 Gm.).

**Quinine & Antipyrine Salicylate Merck** (35)

Mixt. quinine salicylate & antipyrine.—*Uses:* Neuralgia.—*Dose*  $1\frac{1}{2}$ –8 grains (0.1–0.5 Gm.).

**Quinine & Antipyrine Valerate Merck** (35)

Mixt. of quinine valerate & antipyrine.—*Uses:* Neural., &c.—*Dose*  $1\frac{1}{2}$ –8 grains (0.1–0.5 Gm.).

**Quinine & Uranium Chloride Merck** (35)

Yellow, cryst. powd.—*Sol.* W.

**Quinine & Urea Hydrochloride Merck** (13)

(Carbamidated Quinine Dihydrochloride).— $C_{20}H_{24}N_2O_2 \cdot HCl + CO(NH_2)_2 \cdot HCl + 5H_2O$ .—Wh. cryst.—*Sol.*, part. W.—70% quinine.—*Melt.* 70–71° C.—*Uses:* Inj.; the salt is v. soluble.—*Inj.*  $1\frac{1}{2}$ –8 grains (0.1–0.5 Gm.) in 50% aq. solut.

**Quininephytin**

(Quinine Anhydro-oxymethylenediphosphate).— $C_{20}H_{24}N_2O_2 \cdot PO(OH)_2 \cdot (OH)CH_2O \cdot CH(OH) \cdot PO(OH)_2$ .—Yellowish, bitter, cryst. powd.—*Sol.*, eas. W.; insol. A., E., B., C.; aq. solut. is fluoresc.—*Antimalarial*; *Tonic*.—*Uses:* Malaria-cachexy, pneumon., &c.—*Dose* 8 grains (0.5 Gm.) sev. t. p. d.—Not adapted for hypoderm. use.

**Quinium Merck** (15)

(Chinium; Crude Quinine).—Fr. recent cinchona bark w. KOH & alcohol, according to a French process.—Amorph., friable mass; contains all

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



the constit. of cinchona bark but the woody fiber.—*Uses*: Obstinate intermit. fever; said to act better than quinine.—*Dose*  $1\frac{1}{2}$ –8 grains (0.1–0.5 Gm.).

**Quinoidine Merck.—Purified** (3)  
(Chinoidine).—Mixed amorph. alkaloids fr. cinchona bark that remain in solut. after the cryst. alkaloids have been removed.—*V.* bitter, brownish-black mass; lustrous, resinous appearance & conchoidal fracture.—*Sol.*, dil. acids, A., C.—Softens below 100° C.—*Antipyr.*, *Antip.*, *Tonic*, &c.—*Uses*: Intermit. & remit. fever. Best taken between paroxysms.—*Dose* 2–8–15 grains (0.12–0.5–1 Gm.).

**Quinoidine Borate Merck** (5)  
Yellowish-brown powd.—*Sol.* W., A.—*Uses*, &c.: As of quinoidine, particularly for hypoderm. use, because of its easy solubility.—*Dose* 8–15 grains (0.5–1 Gm.).

**Quinoidine Citrate Merck.—Scales** (5)  
Reddish-brown scales.—*Sol.* W., A.—*Dose* 5–25 grains (0.3–1.6 Gm.).

**Quinoidine Hydrochloride**  
Brownish-yellow sticks or mass.—*Sol.* W., A.

**Quinoidine Sulphate Merck.—Dry** (4)  
Amorph., brown mass or sticks.—*Sol.* W., A.

**Quinoidine Tannate Merck** (5)  
Amorph., yellow or brownish powd.—*Sol.*, partly in A.—*Antipyr.*; *Antip.*; *Astring.*; *Tonic.*—*Uses*: *Intern.*, dyspep., diar., & albumin., intermit. & remit. fever.—*Veter.*, hog cholera.—*Doses*: 2–12 grains (0.12–0.8 Gm.); *veter.*, 25 grains (1.6 Gm.) 3 t. p. d.

**Quinoidine Merck** (30)  
(Chinoidine).— $C_9H_7NCl$ .—Chlorine-iodide addit. prod. of quinoline.—Yellow powd.—*Sol.* A.; insol. W.—*Antisept.*—*Uses*: Mixed w. talcum as dusting powd., or in oint. w. petrolatum, in skin diseases.

**Quinol.**—see **Hydroquinone**

**Quinoldimethylester.**—see **Dimethylhydroquinone**

**Quinoline Merck.—Pure** (9)  
(Chinoline; Leucoline).—A tertiary amine, naturally fr. coal-tar, or artificially fr. aniline, w. nitrobenzene, glycerin, sulphuric acid & heat.— $C_9H_7N$ , or,  $(CH_2CH)_3C_6H_4N$ .—Colorl. liq.; yellow w. age or on expos.; pecul. odor; absorbs moisture fr. air.—*Sp. Gr.* 1.090 at 15° C.—*Misc.* A., E., carbon disulphide.—*Antisept.*; *Antipyr.*; *Antizymotic.*—*Uses*: In alcohol. solut. as gargle in diphth.; as a tooth wash, intest. antisept. in dysent., & as preserv. of anatomical & o. specimens.—*Dose* 15–30  $\mathfrak{m}$  (1–2 Cc.).—*Caution*. Keep well stoppered.

do. Merck.—Fr. Cinchonine (250

do. Merck.—Synthetic (Boil. 230–234° C.) (10

**Quinoline Bisulphate.**—see **Quinoline Sulphate**

**Quinoline Blue.**—see **Cyanine**

**Quinoline Chloriodide Merck** (35)  
 $C_9H_7NClI$ .—Yellow need.—*Sol.* A.—*Melt.* 112° C.

**Quinoline Chloriodomethylchloride.**—see **Iodolin**

**Quinoline Citrate Merck** (30)  
 $C_9H_7N.C_6H_8O_7$ .—Wh. powd.—*Sol.* W.

**Quinoline Hydrochloride Merck** (30)  
 $C_9H_7N.HCl$ .—Deliq. wh. to yellowish cryst.—*Sol.* W., A., C.—*Melt.* 93–94° C.

**Quinoline Methylchloride Merck** (120)  
 $C_9H_7N.CH_3Cl + H_2O$ .—*Melt.* 126° C.

**Quinoline Methyliodide Merck** (100)  
 $C_9H_7N.CH_3I$ .—Yellow cryst.—*Melt.* 73° C.—*Sol.* W., A., C.

**Quinoline Salicylate Merck** (15)  
 $C_9H_7N.C_7H_6O_2$ .—Grayish-white, cryst. powd.—*Sol.* A., E., oils.—*Antisept.*; *Antirheum.*—*Uses*: *Intern.*, whoop, cough.—*Dose* 8–15 grains (0.5–1 Gm.).—*Extern.*, inj. for gonorr.—*Appl.* 0.7% aqu. solut.

**Quinoline Sulphate Merck** (20)  
(Quinoline Bisulphate).— $C_9H_7N.H_2SO_4$ .—Wh. to grayish-white, cryst. powd.—*Sol.* W.—*Melt.* 164° C.—*Antiseptic.*—*Uses*, &c.: As of quinoline

**Quinoline Tannate Merck** (25)  
Yellow powd.—*Sol.* A.

**Quinoline Tartrate Merck** (9)  
 $(C_9H_7N)_2(C_4H_6O_6)_2$ .—Wh., cryst. powd.; pung. odor; sharp taste.—*Sol.* 80 W., 150 A., 300 E.—*Melt.* 125° C.—*Antipyr.*; *Antip.*—*Uses*: Intermit. fever, the dose being given three hours before paroxysm; in gonorr., inj. 0.7% aqu. solut.—*Dose* 5–15 grains (0.3–1 Gm.).—*Max. D.* 30 grains (2 Gm.), single 60 grains (4 Gm.) p. day.

**Quinoline Yellow Merck.—Alcohol-soluble** (35)  
(Quinadylencphthalid; Quinophthalon).—Yellow powd.—*Sol.*, diffie. in A.; insol. W.—*Uses*: Coloring wax & lacquers.

do. Merck.—Water-soluble (10)  
Sodium salt of Quinophthalonsulphonic Acid—Yellow powd.—*Sol.*, eas. W. & A.—*Uses*: Dyeing wool & silk.

**Quinoline & Iron Citrate Merck.—20% Quinoline** (12)  
(Ferrous Quinoline Citrate).—Greenish-brown scales.—*Sol.* W.

do. Merck.—10% Quinoline (10

**Quinoline-Betanaphthol Merck** (25)  
(Naphtholquinoline).— $C_{10}H_7N.C_{10}H_7OH$ .—Yellowish, cryst. powd.—*Sol.* A.—*Melt.* 57–58° C.

**Quinoline-Bismuth Sulphocyanate [Rhodanide].**—see **Cruir**

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Acenitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Quinoline-hydroquinone Merck.** Cryst. (100  
(Dioxyquinoline).—Fr. quinoline-quinone, by  
reduct. w.  $\text{SO}_2$ .  $\text{C}_8\text{H}_7\text{N} + \text{C}_6\text{H}_4(\text{OH})_2$ . Wh. to  
reddish cryst. Sol. W., A., E.—Decomp. on  
heating to 220° C.

**Quinoline-resorcinol Merck** (90  
 $2\text{C}_8\text{H}_7\text{N} + \text{C}_6\text{H}_2\text{O}_2$ .—Wh. to yellowish, cryst.  
powd.—Sol. A., hot W.—Melt. 102° C.—Anti-  
pyr.; Antisept.

**Quinone Merck** (60  
(Benzoquinone; Chitone).—Fr. aniline & o.  
subst. by oxal'n.  $\text{C}_6\text{H}_4\text{O}_2$ . Yellow cryst.;  
character. odor.—Sol. A., E., alkali. solut.; sl. in  
W.—Melt. abt. 115° C.

**Quinone Monoxime.**—see **Nitrosophenol, Para-**

**Quinophthalon.**—see **Quinoline Yellow, Alcohol-**  
**soluble**

**Quinopyrine** (125  
(Chinopyrine; Antipyryne-quinine).—Comp. of 3  
parts quinine (as hydrochloride) & 2 parts anti-  
pyryne.—Wh. powd.—Sol. W.—Uses: Malaria;  
adapted for hypoderm. use.—Dose 5–25 grains  
(0.3–1.6 Gm.).

**Quinosol** (15  
(Chinosol; Potassium Oxyquinolinesulphonate).  
 $\text{C}_{10}\text{H}_6\text{N}_2\text{O}_8\text{SO}_4\text{K}$ .—Antisept.; Disinf. — Uses:  
Gynecology, & disinfecting hands & surg. instru-  
ments, in 1:2000–1000–100 solut. For pre-  
serving anatomical specimens, 5% solut. is inj.  
into arteries.

## R

**Rabelaisia Bark**

This Philippine arrow-poison bark is considered  
by Boersma identical with Abuhab Cahoy (q. v.).

**Rabl's Chromo-Formic Acid**

0.3 Gm. chromic acid, 2 drops formic acid, &  
100 Ce. W.—Uses: Fixing animal tissues.

**Rabl's Hematoxylin-Safranin**

(a) Delafield's hematoxylin; (b) solut. 0.2 Gm.  
safranin in 100 Ce. 50% A.—Uses: Double-  
staining.

**Rachitol Tablets Stültzner-Merck**

Compressed tablets, each cont.  $\frac{1}{12}$  grain (0.005  
Gm.) dried suprarenal gland.—Uses: Rachitis.  
—Dose: Children, accord. to their weight; under  
10 lbs., 1–2 tabl. daily; fr. 10–20 lbs. & upwards,  
2–3 tabl. daily, increased to fr. 6–7 tabl. daily  
after several weeks.

**Radium**

*Etymol.*: Fr. Lat. "radius," a ray, referring to  
the luminous & o. rays given off by the element.  
Discovered in 1898 by Mme. Curie, in pitch-  
blende.—Ra.—Radium has not been isolated as  
such in the free state. It is marketed chiefly  
as hydrobromide, the salt being of varying  
radioactive strength acc. to its purity. Its

strength is denoted by numerals showing the  
relation to an absolutely pure salt, the radio-  
activity of which is designated arbitrarily as  
1,000,000 or even higher. The salt of radium  
possess the power of imparting radioactivity to  
other substances by contact or exposure, the  
substances then also becoming radioactive.—  
Uses: Therapeutically, in lupus, cutan. tu-  
bercul., superficial epithelioma, cancer, &c.  
The salt, inclosed in a sealed glass tube, is  
brought near or fastened to the affected part,  
& the rays allowed to impinge for a sufficient  
time. On the healthy skin, the rays may cause  
severe & obstinate burns that heal very slowly.

**Raffinose Merck** (100

(Mellitose, Mellitriose; Gossypose).—Trisaccha-  
ride, fr. beets or cotton-seed cake.— $\text{C}_{18}\text{H}_{32}\text{O}_{16} +$   
 $5\text{H}_2\text{O}$ . Wh., cryst. powd.; sweetish taste.—Sol.  
W.—Melt. 118–119° C.

**Ragwort, Golden.**—see **Senecio Aureus**

**Ranvier's Picrocarmine**

Add str. ammon. carmine to satur. solut. of  
picric acid until turbid; evap. to  $\frac{1}{5}$ ; filter; evap.  
filtrate dry; diss. in W. & add carboic acid to  
prevent fermentation.—Uses: For double-stain-  
ing. Nuclei are colored red; connective tissue,  
rose-red; keratohyalin, red; keratin & elastic  
fibers, yellow; muscular fiber, brownish-red.

**Ranvier's Purpurine-Alum**

Purpurine & alum boiled w. W. & added while  
hot to 90% A.—Uses: Staining sections.

**Rape Flowers.**—see **Napus**

**Raspberry.**—see **Rubus Idæus**

**Rattlesnake Root.**—see **Senega**

**Realgar.**—see **Arsenic Sulphide, Red**

**Red Antimony.** } —see **Antimony, Sul-**  
**Red Antimony Sulphide.** } **phurated**

**Red Arsenic Glass.**—see **Arsenic Sulphide, Red**

**Red Bole.**—see **Bole, Armenian**

**Red Bud.**—see **Cercis**

**Red, Chrome or Persian.**—see **Lead Chromate,**  
**Basic**

**Red Lead.**—see **Lead Oxide, Red**

**Red Orpiment.**—see **Arsenic Sulphide, Red**

**Red Poppy.**—see **Rhæados**

**Red Precipitate.**—see **Mercury Oxide, Red**

**Red Rose.**—see **Rosa Gallica**

**Red Sandwort.**—see **Arenaria**

**Red Saunders.**—see **Santalum Rubrum**

**Reddish Blue Merck** (10

Sod., amm., or calc., salt triphenylrosaniline- &  
triphenylpararosaniline-sulphonic acids comb.  
w. some corresp. disulphonic acids.—Dark-violet  
powd.—Sol. W.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Reddle*.—see **Hematite**

*Regulus of Antimony*.—see **Antimony**

### Renaden

(26)

Lactose trituration of extract prep. fr. kidneys of hogs.—1 part = 2 parts fresh organ.—*Uses*: Uremia, nephritis, &c.—*Dose* 90–120 grains (6–8 Gm.) p. d.

### Renaglandin

Fr. suprarenal capsule.—Brown, syrupy liq.—1 fl. dr. († Cc.) = 5 grains (0.3 Gm.) fresh capsule.

### Renaut's Hematoxylin-Eosine

Mixt. of Ehrlich's hematoxylin-glycerin with solut. eosine (1%) in sol.-chloride solut., & solut. potassium alum (1%) in glycerin.—*Uses*: Stains nuclei violet; connective tissue pearl-gray; elastic fibers & blood corpuscles dark-red; protoplasm of cell & of axis cylinders rose-red, & that of mucous cells blue.

### Renaut's Hematoxylin-Glycerin

1 Gm. hematoxylin, 1 Gm. alum, 50 Cc. A., 50 Cc. G., & 50 Cc. W.—*Uses*: Rapid. stain. nuclei.

### Rennet Powder.—1: 100,000

Enzyme fr. stom. of calf.—Grayish-wh. to yellowish-wh. powd.; coagulating 100,000 times its own weight of milk.—*Sol.*, partly in W.—*Uses*: To coagulate milk & make it more easy of assimilation. Given to diabetics to convert the glucose of their food into lactic acid.—*Dose* 10–30 grains (0.6–2 Gm.).

do.—1: 20,000

Coagulates 20,000 times its own weight of milk.

### Resalol

Acetyl deriv. of condens. prod. of chlormethylsalicylic aldehyde w. resorcinol. —  $C_{20}H_{14}O_5$ — $(CH_3CO)_2$ .—Yellow, amorph., v. light powd.—*Sol.*, alkalies; insol. W.—Antituberc.; Intest. Antisep.—*Uses*: Intest. tuberculosis, & catarrhal & intest. ulcerative processes.—*Dose* 45–75 grains (3–5 Gm.) p. d.

### Resalgin

(Antipyrine Resorecyate). —  $(C_{11}H_{12}N_2O_2)_2 \cdot C_7H_6O_4$ .—Fr. antipyrine & betaresorecylic acid.—Colorl. needl.—*Sol.* 20 boil. W.; more eas. A.—*Melt.* 115° C.—Antisep.

*Resin Benzoin*.—see **Benzoin**

*Resin Buchu*.—see **Barosmin**

*Resin Burgundy*.—see **Pitch, Burgundy**

### Resin Cannabis Indica

Resinous extractive fr. Cannabis Indica.—Possesses the intoxicating & narcotic properties of the drug.—Brown powd.

### Resin Copaiba Merck

(3)

Residue fr. distil. balsam copaiba.—Brown, amorph. mass. — Antiseptic. — *Uses*: Gonorr., cystitis, & dis. of muc. membr. of gen.-urin. org.

—*Dose* 10–20 grains (0.6–1.3 Gm.); as diuret. in dropsy, 15 grains (1 Gm.) several t. p. d.

*Resin Copal*.—see **Copal**

*Resin Damar*.—see **Damar**

*Resin Elemi*.—see **Elemi**

*Resin Guaiac*.—see **Guaiaac**

### Resin Jalap Merck.—U. S. P.—True (10)

Unbleached resin fr. powdered root Exogonium Purga, Benth., by extract. w. A.—Consists chiefly of convolvulin.—Brown, amorph. mass or powd.—*Sol.*, all prop. A.; partly in E.; insol.  $CS_2$ , B., & oils.—Hydragogue; Drastic Cath.—*Uses*: Chronic constip., dropsy, &c.; us'y w. o. remed.—*Doses*: To increase peristalsis, 1–3 grains (0.06–0.2 Gm.); as drastic cath., 5–8 grains (0.3–0.5 Gm.).

### Resin Kamala Merck (25)

Fr. glands of Rottlera tinctoria (Kamala).—Brown, amorph. pieces.—Teniafuge.

### Resin Kava-Kava Merck.—Mixed (200)

(Kawaïn).—Arom., acrid, greenish-brown mass, cont. alpha- & beta-resins in the proportions in which they exist in Kava.—*Uses*, &c.: As of following.

### Resin Kava-Kava (Alpha-) Merck (400)

Fr. root Piper methysticum, Forst.—Brown mass.—*Sol.* A.—Local Anesth.; Antisep.—*Uses*: *Extern.*, inst. of cocaine, & also for gonorr., leucorr., & o. inflamed condit. of muc. membr. The alpha-resin is the more potent.

### Resin Kava-Kava (Beta-) Merck (125)

Brown resin.—*Uses*: As of preceding; effects less pronounced.

*Resin Kino*.—see **Kino**

### Resin Koussou Merck (50)

(Kossein of Martius). — Fr. female flowers of Hagenia abyssinica.—Brownish-black mass.

### Resin Mezereum Merck (40)

Acrid resin fr. bark of Daphne Mezereum.—Brown mass.—*Sol.* A.—Epispastic; produces blisters on the skin.—*Appl.*, in 1:4 alc. solut., or 1:8–24 oint.

### Resin Podophyllum Merck (8)

("Podophyllin").—Fr. rhizome & roots Podophyllum peltatum, L. (May Apple; Mandrake) by extract. w. A.—Light-yellow powd., or sm., yellowish, bulky, fragile lumps; faint odor; acrid, bitter taste. Irritates muc. membr.—Dust greatly inflames conjunctiva.—*Sol.*, clearly in 10 A. & in 100 ammonia; (75% resin sol. in E.; 65% in C. Not more than 25% in boil. W.; sol. KOH, or NaOH, U. S. P.).—*Constit.*: Podophyllotoxin, pieropodophyllin, pieropodophyllinic acid, podophyllinic acid, & podophylloquercetin; only the first two are active.—Hydragogue Cath.—*Uses*: With o. cath. to increase

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



their energy.—Habitual constip., in combination w. extr. hyoscyamus to prevent colicky pains, sm., continued doses not best.—*Doses*: In acute constipation,  $\frac{3}{4}$ – $1\frac{1}{2}$  grains (0.05–0.1 Gm.); in habitual constip.,  $\frac{1}{8}$ – $\frac{1}{2}$  grain (0.005–0.03 Gm.).—Children. Under 1 yr.  $\frac{1}{12}$  grain (0.005 Gm.); 1–4 yrs.,  $\frac{1}{6}$ – $\frac{1}{3}$  grain (0.01–0.02 Gm.); older children,  $\frac{1}{2}$  grain (0.03 Gm.).—*Max. D.*  $1\frac{1}{2}$  grains (0.1 Gm.) single; 5 grains (0.3 Gm.) p. d.

**Resin Quebracho Merck** (35)

Fr. bark of *Aspidosperma Quebracho-blanco* (Quebracho).—Grayish-brown pieces.—*Uses*: Diar.—*Dose*  $1\frac{1}{2}$  grains (0.1 Gm.) in pill, sev. t. p. d.

**Resin Rhubarb, Red.**—see **Erythroretin**

**Resin Scammony Merck.**—Brown (5)

(Scammonin).—Fr. tubers of *Convolvulus Scammonia*, L., by extract. w. A., & precip. with W.—Contains chiefly jalapin-scammonin.—Brown, amorph. mass.—*Sol.* A., E., C., alkalies (w. heat), oil turpentine.—Hydragogue Cathartic.—*Uses*: With o. cath. to increase their power.—*Doses*:  $\frac{1}{3}$ –1 grain (0.02–0.06 Gm.); as drastic cathart., 3–8 grains (0.2–0.5 Gm.).

**do. Merck.**—White, lumps or powder (15 ("Scammonin").)—The brown resin bleached.—Yellowish, amorph. masses or powd.—*Uses*: As of preceding.

**Resin Sumbul Merck** (60)

Fr. root *Euryangii Sumbul*, Jatamansi.—Brown, mass.—Transient Stimulant.—*Uses*: Spastic disturbances, chorea, delirium tremens, vesical affections, typhoid, chlorosis, &c.—*Extern.*, as sinapism (in recent rheum.) in form of paper impregnated w. conc. alc. solut. sumbul resin.—*Dose*  $1\frac{1}{2}$ –8 grains (0.1–0.5 Gm.) p. d.

**Resin Thapsia Merck** (35)

Fr. root *Thapsia garganica*, L. (Spanish Turpeth-root).—Brown, extract-like mass.—*Sol.* A., E.—Epispastic.—*Uses*: *Extern.*, in form of plaster (Sparadrap de Thapsia) as a counter-irritant to relieve pain. May cause severe erythema w. intense military eruption. Applied too long, leaves sore w. permanent scar.

**Resin Tolu.**—see **Balsam Tolu**

**Resin Veratrum Viride Merck** (40)

A somewhat modified extract fr. root *Veratrum viride*.—Grayish-brown, amorph. mass.—Antipyrctic.—*Uses*: Pneumonia.—*Dose*  $\frac{1}{6}$ – $\frac{1}{3}$  grain (0.01–0.02 Gm.).

**Resina.**—see **Rosin**

**Resinates.**—see under **Copper, Lead, Lead & Manganese, & Manganese**

These preparations serve for the rapid & convenient manuf. of varnishes without the employment of much heat, a temperature of 120–150° C. being sufficient.

**Resineon Merck** (4)

Volat. oil fr. black tar-oil by distil.; free fr. carbolic acid.—*Boil.* 148° C.—Antiseptic.—*Uses*: *Extern.*, dress. for wounds or injuries, & in skin dis.; in 1–Soint. byunction in chron. eczema.

**Resorpyrin**

React.-prod. fr. mix. aqu. solut. resorcinol & antipyrine in molecular prop.—Wh., opaque mass, or wh. powd.—*Sol.* A., E., C.—Antipyr.; Analg.; Antisept.—*Uses*: All febrile & painful condit. where antipyrine & resorcinol are indic.—*Dose* 5–10 grains (0.32–0.65 Gm.).

**Resorbin** (2)

Ointment base consisting of expressed oil almonds, wax, & small quantities gelatin, soap, & lanolin.—Rapidly absorbed, hence adapted for introd. remedies into system by the skin.—The 33 $\frac{1}{3}$ % mercury-resorbin partie. effective.

**Resorcinol Merck.**—Recryst.—Highest Purity, Medicinal (2)

(Metadihydroxybenzene; Resorcin).—Diatomic phenol fr. benzenemetadisulphonic acid, by sodium hydroxide with heat.— $C_6H_4O_2$ , or,  $C_6H_4(OH)_2$  [1:3].—Perf. wh. cryst.; reddish on expos.; unpleas. sweet taste.—*Sol.* 0.5 A., 0.6 W., E., G.; v. sl. in C.,  $CS_2$ , & B.—*Melt.* 109–111° C.—*Boil.* 276.5° C. (U. S. P.)—Antisept.; Antispasmod.; Antipyr.; Antiemetic.; Antizymotic.—*Uses*: *Intern.*, for vomiting, seasick., asthma, dyspep., emphysema, gastric ulcer, cholera inf., hay fever, diar., whoop-cough, enteritis, cystitis, & diphth.—*Extern.*, inflammatory dis. of skin, eyes, throat, nose, mouth, urethra, vagina, & in erysipelas.—*Doses*: In seasick., chronic gastric catarrh, cholera nostras, or cholera morbus: 2–3 grains (0.12–0.2 Gm.), every 1–2 hours in solut. or powd.; ordinary: 5–10 grains (0.3–0.6 Gm.) several t. p. d.; antipyrctic: 15–30 grains (1–2 Gm.).—*Appl.*, solut. 5–30%; as eyewash, 1:50 solut.; as enema, 1:200 solut.; as oint., 5–10:30.—*Max. D.* 45 grains (3 Gm.) single; 150 grains (10 Gm.) p. day.—*Caut.* Keep well-stoppered, in dark amber bottle.

**do. Merck.**—Powd. (2)

**do. Merck.**—Impalpable powder (5)

*Uses*: For insufflation.

**do. Merck.**—Resublimed.—Highest Purity, Medicinal (12)

**Resorcinol Merck.**—Reagent (16)

$C_6H_4(OH)_2$ .—Colorl. cryst.; scarcely percept. but pecul. odor.—*Sol.*, abt. 1 W., 1 A.; eas. E., G.; diffic. C.,  $CS_2$ .—Volat. on warm.—*Melt.* 110–111° C.—Aq. solut. acid to litmus paper.—*Tests*: (Res.) volat. 1 Gm. by heat.—none w. glbl. —(*Di-resorcinol*; *Phenol*) 1 Gm. + 20 Ce.  $H_2O$  — perf. clear solut.; on warm. solut. no phenolic odor.—(*Free Acids* [*Salicylic Acid*]) 1 Gm. + 10 Ce. A. + 1 drop solut. lacmoid —wine-red solut.; add to solut. 1 drop decinorm. KOH —blue color.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



—*Uses*: Detect. chloral, chlorof., HCl in gastric juice, lignified tissue, certain volat. oils, beet sugar & o. carbohydrates, nitrates, nitrites, iodoform, formaldehyde, tartaric acid; testing quality of some phenols.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

# **"Resorcinol"** (25)

(Not Resorcinol,  $C_6H_6O_2$ , called also "Resorcin").

—Fr. resorcinol, by melting with equal part iodoform.—Amorph., brown, cryst. powd.; iodine odor; taste like iodoform.—Antiseptic.—*Uses*: *Extern.*, surg. dress. in wounds, chancres, ulc., &c.; scabies, psoriasis, eczema, erysip., & o. skin dis.—*Appl.*, dust. powd., 20–50% w. starch; or 5–15% oint. in skin dis.

*Resorcinol Blue*.—see **Lacmoid**

*Resorcinol Monoacetate*.—see **Euresol**

*Resorcinol Yellow*.—see **Yellow T**

*Resorcinol-bismuth*.—see **Bismuth Resorcinated**

*Resorcinoldimethylester*.—see **Dimethylresorcinol**

# **Resorcinol-eucalyptol Merck** (35)

Wh., cryst. powd.—*Sol.* A.—Antiseptic.—*Uses*: *Extern.*, dress. for wounds, ulcers, & skin. dis. in oint. or alcoh. solut.; also as inhalations in aqu. solut. in phthisis with putrid sputa.

*Resorcinol-hexamethylenamine*.—see **Hetralin**

*Resorcinol-mercury Acetate*.—see **Mercury Resorcinolacetate**

*Resorcinolphthalein*.—see **Fluoresceïn**

*Resorcinolphthalin*.—see **Fluorescin**

# **Resorcinol-salol Merck** (70)

Fr. resorcinol by phenyl salicylate.—Antiseptic.—*Uses*: Intest. inflam., diar., dysent., typhoid, rheum., &c.—*Dose* 3–10 grains (0.2–0.6 Gm.).

# **Resorcyalgin**

(Betaresalgin).—Fr. betaresorcylic acid w. antipyrine.—Needles.—*Sol.* A., E., C.; 150 W.—*Melt.* 115° C.—Antipyr.; Anodyne.

*Rest Harrow*.—see **Ononis**

# **Retene Merck. — Highest Purity** (30)

(Methyl Isopropylphenanthrene).—Constit. wood-tar.— $C_{18}H_{18}$ , or,  $(CH_3)(C_3H_7)C_{12}H_{12}(CH:CH)C_6H_4$ .—Yellowish-wh., cryst. powd.—*Sol.* A., E., B.,  $CS_2$ .—*Melt.* 98.5° C.—*Boil.* 394° C.

do. Merck.—Commercial (5)

# **Retinol Merck** (13)

(Rosinol; Codoil; Rosin Oil).—Fr. rosin by distilln.— $C_{32}H_{56}$ .—Thick, viscid, yellow, oily liq.—*Sol.* E., oils, oil turpent.—*Boil.*, above 280° C.—Antiseptic.—*Uses*: *Intern.*, venereal affect.—*Extern.*, oint. or linim. in skin dis., & inj. in

gonor.; also solv. of phosphorus, salol, camphor, naphthols, carbolic acid, &c. Reccom. as excipient for phosphorus.—*Techn.*, as solvent of sulphur, in manuf. wagon-axle grease, lampblack for lithography & printing inks, in varnishes, retinol colors, lacquers, brewers' pitch, &c.—*Dose* 8 m (0.5 Gm.) 4–6 t. p. d. in caps.

# **Reunil Merck.—Crystallizable** (110)

(Rhodium de Pelargonium).—Fr. Réunion-geranium oil; possesses alcoholic functions.— $C_{10}H_{18}O$ .—Alm. color., oily liq.—*Sp. Gr.* 0.873 at 15° C.—*Opt.* Rot. –1°.—*Boil.* 224–228° C.—*Uses*: Instead of oil rose in perfumery.

*Rhubarbarin*.—see **Erythretein**

*Rhamnose*.—see **Isodulcit**

# **Rhamnus Cathartica**

(Buckthorn).—Berries of *Rhamnus cathartica*, L. Rhamnaceæ.—*Habit.*: Europe; northern Africa to middle Asia.—*Etymol.*: Grk. "rhamnos," buckthorn. "Cathartica" refers to the action of the plant.—*Constit.*: Rhamnocathartin; rhamnotannic acid; rhamnin; rhamnetin. Cathart.; Alter.—*Uses*: Constip., rheumat.; dropsy, &c.—*Dose*: Fld. extr., 30–60 m (2–4 Cc.).

*Rhamnus Frangula*.—see **Frangula**

*Rhamnus Purshiana*.—see **Cascara Sagrada**

*Rhaphidophora*.—see **Tonga**

*Rhatany*.—see **Krameria**

# **Rhein Merck** (750)

(Rheic Acid; True Chrysophanic Acid; Rhubarb Yellow).—Color-matter fr. root *Rheum officinale*, Baillon (Rhubarb); oxidation prod. of chrysarobin.— $C_{16}H_{10}O_4$ , or,  $C_{14}H_8(CH_3)(OH)_2O_2$ .—Yellow powd., or small, golden-yellow cryst.—*Sol.* C., B., carbon disulph.; sl. A.; v. sl. W.—Antiseptic.—*Uses*: 5–10% oint. in skin dis., inst. chrysarobin, in facial eczema, &c.—*Caut.* Keep fr. light & away fr. eyes.

*Rheum*.—see **Rhubarb**

*Rheumatism Root*.—see **Jeffersonia**

*Rheumatism Weed*.—see **Apocynum Androsæmifolium**

# **Rhinacanthus**

(Tong-Pang; Chong-Ching; Ringworm Root).—Recent root of *Rhinacanthus communis*, Nees. Acanthaceæ.—*Habit.*: India to China.—*Etymol.*: Grk. "rhinos," nose, & "akanthos," a thorn, i.e., the flowers of this thorny plant are shaped like a nose.—*Constit.*: Rhinacanthin,  $C_{14}H_{14}O_4$ .—*Uses*: *Extern.*, in form of fld. extr. in skin diseases like tinea circinata, ringworm, impetigo, &c., by painting on twice daily.

*Rhodalline*.—see **Thiosinamine**

# **Rhodamine B Merck** (10)

(Diethylmeta-amidophenolphthalein).— $C_{28}H_{31}N_2O_3Cl$ .—Reddish-violet powd.—*Sol.*, eas. W., w

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



bluish-red color, the old. It fluoresces strongly; also of A.—*Uses*: Dyeing wool & silk.

## Rhodium

(Rose Wood.—Wood of *Convolvulus* (*Rhodora*).—Sesquiped. L. *Convolvulaceae*.—*Habit*: Canary Is. and West India.—*Etymol.*: Named for the island of Rhodes, where found.—*Constit*: Volat. oil.—*Uses*: Wood used in perfum., & fancy cabinet-making. The volat. oil as attractive but for martens & foxes.

## Rhodium Merck.—Powder

6000

*Etymol.* Fr. Grk. "rhodios," rose-red, because the compound of the element with acids possesses a rose-red color (Wollaston, 1803).—Metal—Rh.—Wh. bluish-gray, ductile hard metal, obtained from platinum ores; ductile & malleable like silver.—Sp. Gr. 12.1 at 15° C.—*Uses*: Techn. but little used; in manuf. alloys (rhodium steel).

## Rhodium Chloride Merck

6000

(Rhodium Sesquichloride; Rhodorhodic Chloride).— $Rh_2Cl_6$ .—Brownish-red, deliq. powd.—*Sol.* W.

*Rhodium Sesquichloride*.—see **Rhodium Chloride**

## Rhododendron

(Rose Bay; Snow Rose; Siberian Rose; Yellow Rhododendron).—Lvs. of *Rhododendron* *chrysanthemum*, L. *Ericaceae*.—*Habit*: Northeastern Asia.—*Etymol.*: Fr. Grk. "rhodon," rose, & "dendron," tree; & "chrysos," golden, & "anthos," flower.—*Constit*: Volat. oil; tannin; ericolin.—*Uses*: Antiarthrit.; Antirheumat.—*Dose* 2 dr. (8 Gm.).

*Rhodorhodic Chloride*.—see **Rhodium Chloride**

*Rhodoriza Scapularis*.—see **Rhodium (Rose Wood)**

## Rheoëdas

(Corn Poppy; Corn Rose; Copper Rose; African Rose; Red Poppy).—*Papaver Rheas*, L. *Papaveraceae*.—*Habit*: Europe; cultiv. in U. S.—*Etymol.*: Fr. Grk. "rheon," to flow, *i.e.*, the plant freely & easily sheds its leaves. See also *Papaver*.—*Constit*: Rheoëdic acid; papaveric acid; rheoëdine; coloring-matter.—*Uses*: Demulc.; Anodyne.

## Rhubarb.—U. S. P.

(Rheum).—Dried rhizome of *Rheum officinale*, Baillon, *R. palmatum*, L., & *R. tanguticum*, Maxim. *Polygonaceae*. Other spec. yielding rhubarb are *R. rhaponticum*, &c.—*Habit*: Central Asia; cultiv. in Europe; southern Siberia.—*Etymol.*: Grk. "Rha," the river Volga, on the banks of which it grows & was first found. Or, Grk. "rhon," "rhein," to flow, referring to the purgative action. "Officinale," fr. "officina," a shop or store. "Rhaponticum" fr. "Rha," see above, & "ponticus," pontic, *i.e.*, growing on the Pontic or Euxine sea. "Rhubarb" fr. "rheum," & "barbarum," *i.e.*, barbarian plant fr. the Rha, or Volga.—*Constit*: Chrysophanic

acid, emodin, cathartic acid, rheotannic acid, aporetin, erythrorutin; phaeoretin; methyl-chrysophanic acid, rheu; rhubarberon. *R. rhaponticum* contains rhubarberin; rhaponticin, tannin; starch.—*Aper.* Purgat. Astring. Stomachic. Tonic.—*Uses*: Diar., constip., hepatic diseases, & to promote appetite. *R. rhaponticum* used in veterin. practice.—*Doses*: 5-30 grains (0.3-2 Gm.) in powd.—*Alcoh. extr.* 1-2 grains (0.06-0.12 Gm.) tonic; 3-5 grains (0.2-0.3 Gm.) lax.; 8-10 grains (0.5-0.6 Gm.) purgat.—*Ld. extr.* 5-10 ℥ (0.3-0.6 Ce.) tonic; 15-20 ℥ (1-1.3 Ce.) lax.; 30-45 ℥ (2-3 Ce.) purgat.—*Tinct.* 1-4 fl. dr. (4-15 Ce.).—*Aqu. tinct.* 1-4 fl. dr. (1-15 Ce.).—*Arom. tinct.* 30-180 ℥ (2-12 Ce.).—*Sweet tinct.* 60-120 ℥ (4-8 Ce.).

*Rhubarb Yellow*.—see **Rhein**

## Rhus Aromatica

(Sweet Sumach; Fragrant Sumach).—Bark of the root of *Rhus aromatica*, Aiton. *Anacardiaceae*.—*Habit*: Canada & eastern U. S.—*Etymol.*: Fr. Grk. "rhous," the sumach, or tanning tree; Celtic "rhuidd," red, *i.e.*, the fruit is red, & so are the leaves in autumn.—*Pieces* about 1/4 in. (3 Mm.) thick; extern., dark, rusty-brown, & walnut-color below the cork; inner bark permeated by small cavities containing a transp. balsam.—*Constit*: Volat. oil; fixed oil; tannin; resin; wax.—*Tonic*; Diar.; Astring.—*Uses*: Diar.; also in renal & vesical diseases, noct. enuresis, diabetes, &c.—*Dose* 5-60 grains (0.3-4 Gm.) in powd. or fld. extr.

## Rhus Glabra.—U. S. P.

(Sumach; Smooth Sumach).—Dried fruit (also bark) of *Rhus glabra*, L. *Anacardiaceae*.—*Habit*: British America south to Florida & Arizona.—*Etymol.*: For "rhus," see preceding. "Glabra," fr. Lat. "glaber," hairless, smooth, *i.e.*, the leaves & branches are smooth.—*Constit*: *Fruit*: Malic acid; tannin; gallic acid; fixed & volat. oils; red coloring matter.—*Bark*: Soft resin; caoutchouc; volat. principle; albumen; gum; tannin; gallic acid, &c.—*Astring.*; Antidiar.; Refrig.—*Uses*: *Bark*: Diar., dysent., & catarrh. condit. of bowels.—*Fruit*: In diar., for gargles, washes & lotions, sore throat & sore mouth.—*Doses*: *Bark*: Fld. extr., 30-60 ℥ (2-4 Ce.).—*Fruit*: Fld. extr., 15-60 ℥ (1-4 Ce.).

*Rhus Radicans*.—see **Rhus Toxicodendron**

## Rhus Toxicodendron

(Poison Ivy; Climbing or Three-leaved Ivy; Poison Vine; Poison Oak).—Fresh lvs. of *Rhus radicans* (*Toxicodendron*), L. *Anacardiaceae*.—*Habit*: North America.—*Etymol.*: For "rhus" see *Rhus Aromatica*. "Toxicodendron" fr. Grk. "toxikos," poisonous, & "dendron," tree.—*Constit*: Toxicodendrol; toxicodendric acid; resin; gum; rhusannic acid; wax.—*Irritant*; Rubefac.; Nar.—*Uses*: In chronic eczema, incontinent of urine, erysipelas, subacute rheum., paralysis of lower extremities, &c.—*Extern.*, in sprains, burns, stings, chilblains, gout, neural., & in eye affec-

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



tions.—*Techn.*, in tanning.—*Doses*: 2–15 grains (0.12–1 Gm.) in powd. or tinct.—*Alcoh. extr.*,  $\frac{1}{6}$ – $\frac{1}{2}$  grain (0.01–0.03 Gm.).—*Fld. extr.*, 1–5  $\text{ml}$  (0.06–0.3 Cc.).—*Antid.*, extern. appl. of satur. solut. lead acetate in dil. alcohol, alkaline soluts., tinct. lobelia or grindelia, cocaine solut. (1–8%). Internally, opium or coffee.

### Ribes

(Black Currant).—*Lvs.* of *Ribes nigrum*, L. Saxifragaceae.—*Habit.*: Europe; Siberia; cult. in U. S.—*Etymol.*: Fr. Arabic “ribus,” which, however, designates *Rheum Ribes*.—*Constit.*: Malic, citric, & tartaric acids; sugar; pectin; gum; coloring matter; pecul. volat. principle.—*Diur.*; *Diaph.*—*Uses*: Dropsy, gout, bites of poisonous animals, &c. Now rarely used.

### Rice's Bromine Solution

Sol. of 125 Gm. each, bromine & sod. brom. in W. to 1 liter.—*Uses*: With sodium hydroxide sol. (Sp. Gr. 1.250) for urea determination.

### Ricin Robert-Merck

Exceedingly poisonous agglutinin fr. seeds *Ricinus communis*, L., & closely allied to the bacteriotoxins; yields abt. 25–30% ash.—*Wh. powd.*—*Sol.* 10% solut. sodium chloride.—*Caut.* Handle very carefully; small particles in abrasions, eye or nose, may prove fatal; intraven. inject. of 3 grains (0.2 Gm.) are fatal.

### Ricinus

(Castor-oil Plant; Palma Christi; Mexico Seed; Oil Plant; Castor Bean).—Seed & leaves of *Ricinus communis*, L. Euphorbiaceae.—*Habit.*: East & West Indies; southern Europe; Africa; U. S.—*Etymol.*: Grk. “kikinos,” a wood-tiek, because of the great resemblance in appearance between the seeds & the insect. Or, perhaps fr. the Hebrew “kikar,” round, *i.e.*, round seeds.—*Seed*, abt.  $\frac{1}{2}$  in. (12 Mm.) long; grayish, marbled w. blackish spots or bands of various tints & shapes, smooth & shining.—*Constit.*: *Seed*: Fixed oil; ricin, a highly poisonous agglutinin; proteids (emulsin); albumen; mucilage.—*Cathart.*; *Galaetag.*—*Uses*: *Seed*: As source of castor oil. The residual press-cake (after removal of the oil) is highly poisonous. Also in constip. & deficient lactation.—*Doses*: *Lvs.*: *Fld. extr.*, 30–60  $\text{ml}$  (2–1 Cc.).—*Seed*: *Fld. extr.*, 10–30  $\text{ml}$  (0.6–2 Cc.).

*Riegel's Paper.*—see **Congo Paper, Red**

### Riegler's Reagent.—For albumen

Solut. 5 Gm. betanaphthalenesulphonic acid in 100 Cc. W.—Exceedingly sensitive reagent for albumin. Also gives ppt. w. albumoses & peptones; that caused by albumen does not disappear on warming, but those of albumoses & peptones do.—Sensitive 1:40,000.

### Riegler's Reagent.—For nitrous acid & nitrites

Pulverulent mixt. equal parts naphthionic acid & betanaphthol.—Exceedingly sensitive reagent

for nitrites.—1:100,000,000 still detected by pink coloration.

*Ringworm Root.*—see **Rhinacanthus**

### Ripart's Solution

0.3 Gm. cupric chloride, 0.3 Gm. cupric acetate, 1 Gm. acetic acid, & 150 Cc. camphor water.—*Uses*: As preservative of algæ.

### Robin

Albuminoid fr. bark *Robinia Pseudacacia*, L. (Locust).—V. poison. powd.—*Sol.*, partly in W.—*Caut.* Handle with care; similar in poisonous action to abrin & ricin.

*Rochelle Salt.*—see **Potassium & Sodium Tartrate**

*Rock Oil.*—see **Petroleum**

*Rodinal.*—see **Amidophenol, Para-**

*Rohrbach's Solution.*—see **Mercury & Barium Iodide, Solution**

*Roman Wormwood.*—see **Artemisia Pontica**

### Rosa Canina

(Dog Rose; Hip Tree; Cynosbata; Wild Brier).—Fruit of *Rosa canina*, L. Rosaceae.—*Habit.*: Europe; Northern Asia; U. S.—*Etymol.*: For “rose,” see the following. “Cynosbata” (its usual German designation), fr. Grk. “kynosbatos,” the *Rosa sempervirens* of old, & by which name De Candolle wished to show that the buds resembled those of the wild rose.—*Constit.*: Vanillin; tannin; coloring matter.—*Uses*: Mild Astring.

### Rosa Centifolia

(Hundred-leaved Rose; Cabbage Rose; Moss Rose; Pale Rose).—Petals of *Rosa centifolia*, L. Rosaceae.—*Habit.*: Western Asia.—*Etymol.*: Fr. Grk. “rhodon,” fr. Celtic “rhodd” or “rhuidd,” red, referring to the color of the flowers.—*Constit.*: Volat. oil; coloring matter; mucilage; tannin; sugar; malates.—Mild Carmin.—*Uses*: Perfumery, in manuf. of rose water, rose oil, & honey of rose.—*Dose* 15–60 grains (1–4 Gm.).

### Rosa Gallica.—U. S. P.

(French Rose; Dutch Rose; Provins Rose; Red Rose).—Dried petals of *Rosa gallica*, L. Rosaceae, collected before expanding.—*Habit.*: Western Asia; Southern Europe; cult. widely (U. S., France, Holland, England, &c.).—*Etymol.*: See preceding.—*Constit.*: Volat. oil; mucilage; sugar; quercitrin; quercitannic acid.—Mild Astring.; Carmin.—*Uses*: Perfumery & flavoring.—*Techn.*, in manuf. oil rose & rose water.—*Ingred.* in confection of rose, pills of aloes & mastic, & fld. extr.—*Dose* 15–60 grains (1–4 Gm.).—*Fld. extr.*, 30–120  $\text{ml}$  (2–8 Cc.).

### Rosaniline Merck

(12

(Triaminodiphenyltolylecarbinol).—Base fr. mixt. aniline, & ortho- & paratoluidine, by oxid'n.— $\text{C}_{20}\text{H}_{21}\text{N}_3\text{O}$ , or,  $(\text{C}_6\text{H}_4\text{NH}_2)_2\text{C}(\text{C}_6\text{H}_4\text{NH}_2\text{CH}_3)$ .

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Nyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



OIL.—Brownish-red cryst.—*Sol.* H., aniline.—*Uses:* Techn., in manuf. coal-tar dyes.

**Rosaniline Acetate Merck** (12)  
 $C_{12}H_{11}N_3C_4H_7O_4 \cdot 5H_2O$ —Cryst. w. greenish reflect.—*Sol.* W. & A.; most easily solub. of the rosaniline salts.

**Rosaniline Hydrochloride Merck** (12)  
 $C_{12}H_{11}N_3HCl \cdot H_2O$ —Chief constit. of commercial fuchsine.—Rhomb. plates.—*Sol.* sl. W.; more eas. in A.

**Rosaniline Paper.**—see **Fuchsine Paper**

**Rose Bengal Merck** (18)  
 Alkali salt of tetraiododichlorofluorescein.—Brown powd.—*Sol.* eas. in W. w. cherry-red color.—*Uses:* Dyeing wool.

**Rose Bengal B**  
 Potass. salt tetraiodotetrachlorofluorescein.—By act. of iodine on tetrachlorofluorescein, made fr. tetrachlorophthalic acid & resorcinol.— $C_6H_2Cl_4I_4O_5K_2$ , or,  $C_6Cl_4CO_2(C_6H_4KO)_2CO_2$ .—Brownish-red powd.—*Sol.* W.—*Uses:* Dyeing wool bluish-red.

**Rose, Dog.**—see **Rosa Canina**

**Rose Naphthylamine.**—see **Magdala Red**

**Rose, Pale.**—see **Rosa Centifolia**

**Rose, Red.**—see **Rosa Gallica**

**Roseine.**—see **Fuchsine**

## Rosemary

(Garden Rosemary).—Flowers & lvs. of *Rosmarinus officinalis*, L. Labiate.—*Habit.*: Mediterranean Basin; cultiv. in gardens.—*Etymol.*: Fr. Lat. "ros," dew, & "marinus," sea, because of its maritime habit & glaucous appearance.—*Constit.*: *Flowers*: Volat. oil (1%); resin; tannin; bitter principle.—*Lvs.*: Volat. oil; tannin.—*Uses*: *Flowers*: Stim.; Antispasmod.; Emmen.; Rubef.—*Techn.*, in perfumery, & in manuf. of oil rosemary.—*Lvs.*: Rubefac.; Carmin.—*Extern.*, in aromatic washes.

**Rosemary, Wild Marsh.**—see **Ledum**

**Rosenstich's Green.**—see **Barium Manganate**

**Rosecobaltic Chloride.**—see **Cobalt (Roseo)-, Chloride**

**Rosin.**—U. S. P.

(Colophony; Abietic Anhydride; Yellow Resin; Resina).—Residue left on distil. volat. oil fr. turpentine fr. various sp. of *Pinus Conifera*.—*Habit.*: Rosin is chiefly supplied by the U. S.—*Etymol.*: "Rosin" fr. Lat. "resina," fr. Grk. "retine," pine resin. "Colophony," fr. Grk. "Kolophon," a city of Ionia (Greece), after which the resin was named.—Transp., amber-colored, hard, brittle pulverizable resin; poor grades are darker, even almost black; glossy & shallow-conch. fract.; faint, terebin. odor & taste.—Sp. Gr. 1.07–1.08.—*Melt.*, abt. 152.5°

C.—*Sol.* A (90%), E., B, CS<sub>2</sub>, oils, & alkalis, acetic acid.—*Constit.* Chiefly (80–90%) abietic acid, C<sub>19</sub>H<sub>31</sub>O<sub>2</sub>, or, C<sub>19</sub>H<sub>29</sub>O<sub>2</sub>, or its anhydride, C<sub>18</sub>H<sub>27</sub>O<sub>2</sub>, or, C<sub>18</sub>H<sub>25</sub>O<sub>2</sub>, also pinic & sylvic acids.—*Uses*: *Pharm.*, as ingred. in ointts., plasters, cerates, &.—*Techn.*, in varnishes, cements, & as source of rosin spirit & rosin oil, & pitch.—*Dose*: 5 grains (0.3 Gm.) in powd. in chron. enteritis (very rarely used).

**Rosinol.**—see **Retinol**

## Rosolic Acid Paper

Wh. paper impregnated w. rosolic acid.—*Uses*: As indicator (alkalies—red; acids—yellow).

## Roth's Reagent.

For fatty oils  
 Sulphuric acid saturated w. gaseous nitrous acid.—*Uses*: For elaidin test for olive oil.—The time required to solidify the oil after addition of reagent, is observed. If other oils are present, various color reactions may also occur.

## Rotoine

Base, or mixt.(?) of bases, fr. *Scopola japonica*.

**Rotlerin.**—see **Kamalin**

**Rourea.**—see **Cangoura**

## Rubber.

U. S. P.  
 (Elastica; Caoutchouc; Gum Elastic; India Rubber).—Prepared milk-juice of several spec. of Hevea, Aublet (*Siphonia*; *Jatropha*). Euphorbiaceae, known in commerce as Para rubber.—*Habit.*: South America (Guiana; Para).—*Etymol.*: Lat. "elasticus," elastic, i.e., its property. "Caoutchouc," fr. "cahehu," the South American name for the substance. "Hevé" is the native name of the tree in S. America.—India rubber occurs in brownish-black cakes, balls, or hollow-shaped pieces; v. elastic; peculiar odor; alm. tastel; heated w. 10% sulphur, bec. vulcanized.—Sp. Gr. when pure, less than 1.0.—*Sol.* CS<sub>2</sub> w. 5% absol. A.; C.; B.; benzoin; oil turpentine. Insol. W.; dil. acids; alkalies.—*Melt.* 125° C. (after being melted it remains soft and sticky on cooling).—*Constit.*: Resin (abt. 32%); volat. oil; fat.—*Uses*: Techn., in plasters; lacquers; cements; waterproofing; insulating (electrical); dentistry.

## Rubia

(Madder).—Root of *Rubia tinctorum*, L. Rubiaceae.—*Habit.*: Orient; southern Europe.—*Etymol.*: Lat. "ruber," red, referring to the red color of the root. "Tinctorum," fr. "tinctor," dyer, i.e., dyer's red.—*Constit.*: Ruberythrin; rubichloric acid; erythrozym; alizarin; purpurine; xanthine; munjistin; purpuroxanthine.—Diur.; Tonic; Emmen.—*Uses*: Amenorrh., dropsy, & rickets.—*Techn.*, in dyeing.—*Dose* 30 grains (2 Gm.).—Agu. extr., 3–10 grains (0.2–0.6 Gm.).

**Rubianite.**—see **Fuchsine**

**Rubidium Merck.**—Pure (6000

*Etymol.*: Fr. Lat. "rubidus," red, because of the two characteristic red lines in the spectrum of

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



the element, & discovered by Bunsen & Kirchhoff in 1861.—Metal.—Rb.—Sm., gray lumps; freshly cut, present a lustrous, white, metal. surf.; faint tinge of yellow.—Sp. Gr., less than W.—*Melt.* 38.5° C.—*Caut.* Keep under benzene, petroleum, or o. liquid not cont. oxygen.

**Rubidium Acetate Merck** (60)

$\text{RbC}_2\text{H}_3\text{O}_2$ .—Colorl. cryst.—*Sol.* W.

**Rubidium Alum.**—see **Aluminum & Rubidium Sulphate**

**Rubidium Bichromate.**—see **Rubidium Dichromate**

**Rubidium Bitartrate Merck.**—Cryst. (70)

$\text{RbHC}_4\text{H}_4\text{O}_6$ .—Colorl., trimet. prisms.—*Sol.* W.

**Rubidium Bromide Merck.**—Cryst. (50)

$\text{RbBr}$ .—Colorl., cryst. powd.—*Sol.* W.—*Sed.*; Antiepilep.; Hypn.—*Uses:* Epilepsy, delir. trem., headache, & insom., like potass. bromide.—*Dose* 5–10 grains (0.3–0.6 Gm.) several t. p. d.

**Rubidium Carbonate Merck** (70)

$\text{Rb}_2\text{CO}_3$ .—Deliq. cryst., or deliq. wh. powd.—*Sol.* W., A.—*Antacid.*—*Caut.* Keep well stoppered.

**Rubidium Chloride Merck.**—Cryst. (70)

$\text{RbCl}$ .—Wh., cryst. powd.—*Sol.* W.

**Rubidium Chromate Merck.**—Neutral, cryst. (70)

$\text{Rb}_2\text{CrO}_4$ .—Yellow, trimet. cryst.—*Sol.* W.

**Rubidium Dichromate Merck.**—Cryst. (70)

$\text{Rb}_2\text{Cr}_2\text{O}_7$ .—Orange-red cryst.—*Sol.* W.

**Rubidium Fluoride Merck** (500)

$\text{RbF}$ .—Wh., deliq. powd.—*Sol.* W.—*Antisep.*, like other fluorides.

**Rubidium Hydroxide Merck** (85)

(Rubidium Hydrate).— $\text{RbOH}$ .—Grayish-wh., deliq. mass.—*Sol.* W., A.—*Uses:* Manuf. glass.—*Caut.* Keep fr. air.

**Rubidium Iodide Merck** (20)

$\text{RbI}$ .—Wh., cubical cryst.—*Sol.* W.—*Alter.*, Antisyph., &c.—*Uses:* As of sod. or potass. iodide. Does not act on heart or derange stom.—*Dose* 1–5 grains (0.06–0.3 Gm.) several times per day.

**Rubidium Nitrate Merck** (70)

$\text{RbNO}_3$ .—Colorl. need. or prisms.—*Sol.* W., conc. nitric acid.

**Rubidium Platinocyanide.**—see **Platinum & Rubidium Cyanide**

**Rubidium Sulphate Merck.**—Cryst. (70)

$\text{Rb}_2\text{SO}_4$ .—Large, rhombic cryst.; taste like that of potass. sulphate. *Sol.* W.—*Cathartic.*

**Rubidium Tartrate Merck** (70)

$\text{RbC}_4\text{H}_4\text{O}_6$ .—Colorl. cryst.—*Sol.* W.—*Sed.*; Antiepilep.—*Uses:* Nervous palpitation.—*Dose* 3–5 grains (0.2–0.3 Gm.).

**Rubidium & Ammonium Bromide Merck** (55)

$\text{RbBr} \cdot 3\text{NH}_4\text{Br}$ , or,  $(\text{NH}_4)_3\text{RbBr}_4$ .—Wh., cryst. powd.; cooling w. pungent, saline after-taste.—*Sol.* W.—Antiepilep.; *Sed.*; Hypn.—*Uses:* Epilepsy, & as sedative, inst. of potass. bromide.—*Doses:* As antiepilep., 60–100 grains (4–6.5 Gm.) daily, in solut.; as hypn., 60–75 grains (4–5 Gm.).

**Rubidium & Ammonium Chloride Merck** (50)

$\text{RbCl} \cdot 3\text{NH}_4\text{Cl}$ , or,  $(\text{NH}_4)_3\text{RbCl}_4$ .—White, cryst. powd.—*Sol.* W.

**Rubidium & Ammonium Iodide Merck** (40)

$\text{RbI} \cdot 3\text{NH}_4\text{I}$ .—Wh., cryst. powd.—*Sol.* W.

**Rubidium & Lithium & Platinum Cyanide.**—see **Platinum & Lithium & Rubidium Cyanide**

**Rubin S.**—see **Ruby S**

**Rubine.**—see **Fuchsine**

**Rubus.**—U. S. P.

(Blackberry).—Dried root-bark of *Rubus villosus*, Aiton, *R. nigrobaccus*, Bailey, or of *R. cuneifolius* Pursh. Rosaceae.—*Habit.*: Eastern U. S.—*Etymol.*: Fr. Lat. "rubere," to be red, referring to the color of the juice of the fruit. Lat. "villosus," hairy, shaggy, referring to the hairiness of the branches, petioles, & under side of leaves.—*Constit.*: Tannin; gallic acid; villosin (a saponin).—*Astring.*; Tonic.—*Uses:* Diar., dysent., &c.—*Doses:* Aqu. extr., 5–10 grains (0.3–0.6 Gm.).—*Fld. extr.*, 30–60 ml (2–4 Cc.).

**Rubus Fruticosus**

(Common Bramble; Bumble-berry).—Herb of *Rubus fruticosus*, L. Rosaceae. Fragariaceae.—*Habit.*: Europe; North Africa to Central & Northern Asia.—*Etymol.*: "Rubus," fr. Lat. "ruber," red. "Fruticosus," shrub-like.—*Uses:* Astring. (in eye lotions).—*Intern.*, in diar. & hemorrhages.

**Rubus Idæus**

(Red Raspberry; Raspberry).—Fruit & herb of *Rubus Idæus*, L. Rosaceae; Potentilleae.—*Habit.*: Europe; Asia; cultiv. in Canada & U. S.—*Etymol.*: "Rubus," fr. Lat. "ruber," red. "Idæus," fr. "Ida," the name of a mountain in Phrygia, where the plant grew in abundance.—*Constit.*: Sugar; malic & citric acids.—*Uses:* As adjuvant, & flavoring. Dried raspberries are used in Russia as a remedy in biliousness.—Herb is astring. & hemostat.

**Ruby Arsenic.**—see **Arsenic Sulphide, Red**

**Ruby S Merck** (8)

(Sodium Rosanilinesulphonate; Rubin S.; Acid Magenta; Fuchsine S.; Acid Fuchsine; Acid Roseine; Acid Rubine).—Mixture of sod. (or amm.) salts of trisulphonic acids of rosaniline & pararosaniline.—Fr. magenta, by fuming sulphuric acid.—Green powd., or granules; metal. luster.—*Sol.* W., w. bluish-red color.—*Uses:* Techn., color. & dye, wool & silk in acid bath.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Jodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



Not for cotton. Satur. aq. solut. used in microscopy for stain bacteria. Improperly f. color, wine to imitate claret.

*Rue.* see **Ruta**

*Rufigallol.* see **Acid Rufigallic**

## Rumex

(Yellow Dock).—Root of *Rumex crispus*, L., & of some other spec. of *Rumex*. Polygonaceae.—*Habit.* Europe, North America.—*Etymol.* Lat. "rumex," a lance, referring to the shape of the leaves.—*Constit.* Chrysophanic acid; emodin, tannin, calcium oxalate; rumicin; lapathin.—*Astring.*; *Alter.*; *Tonic.*; *Lax.* (Antiscorbut.—*Uses.* Cutaneous diseases, diar., scrof., syph., &c. *Doses.* 15-60 grains (1-4 Gm.) usually as fld. extr.—1 tr., 3-10 grains (0.2-0.6 Gm.).

**Rumex (Eclectic)** (20)

Alcoh. extr. fr. root *Rumex crispus*, L.—Brown powder.—*Sol.* A.—*Alter.*; *Astring.*—*Uses.* Scrof., syph., & cutan. affect.—*Dose.* 1-3 grains (0.06-0.2 Gm.).

*Rupraturewort.* see **Herniaria**

*Rush.*—see **Juncus**

**Russow's Reagent.**—For starch, alkaloids, &c.

Aqu. solut. iodo-potassium iodide.

## Ruta

(Rue; Garden Rue).—Herb of *Ruta graveolens*, L. Rutaceae. *Habit.*: Southern Europe to the Orient.—*Etymol.*: Grk. "ryte," fr. "ryesthai," to save, referring to the curative properties of the plant.—Lat. "graveolens," strong-smelling, i.e. the whole plant has a heavy aromatic odor.—*Constit.*: Volat. oil; rutin.—*Abortifac.*; *Rubefac.*; *Stim.*; *Lumen.*; *Nervine.*—*Uses.*: Amenor., flatul., hysteria, &c. *Doses.*: 5-20 grains (0.3-1.3 Gm.).—Alcoh. or aqu. extr., 2-5 grains (0.12-0.3 Gm.).—Fld. extr., 15-30 ℥ (1-2 Ce.).

## Ruta-Muraria

(White Maidenhair; Wall-rue; Spleenwort; Stone-rue; Rue Fern).—Herb of *Asplenium Ruta-muraria*, L. Polypodiaceae.—*Habit.*: Europe; widely distributed (U. S.).—*Etymol.*: For "ruta," see *Ruta*, above. "Muraria" fr. Lat. "murus," wall, referring to its habit of growing upon walls.—*Aper.*; *Expector.*

**Ruthenium Merck.**—Powd. & fused (7500)

*Etymol.*: Fr. "russe," vulgo "ruthene," derived fr. the Scandinavian originally, & taken over into the Slavonic; the element is found in the Russian platinum ores, hence its derived name; element discovered by Claus in 1845.—Metal.—Ru.—Hard, heavy, wh., lustr., brittle pieces.—Sp. Gr. 11-11.4 at 15° C.—V. diffie. fusible.

**Ruthenium Chloride Merck** (2500)

(Ruthenium Sesquichloride; Ruthenic Chloride).— $Ru_2Cl_6$ .—Deliq., brownish-red, cryst. mass.—*Sol.* W.

*Ruthenium Oxichloride, Ammoniated.*—see **Ruthenium Red**

**Ruthenium Red Merck** (12500)

(Ruthenium Oxichloride, Ammoniated).— $Ru_2(OH)_2Cl_2 \cdot 7NH_3 \cdot 3H_2O$ .—Brownish-red powder.—*Sol.* W.—*Uses.* Micros. stain & reagent for pectin, plant mucin, & gum. In 1-5,000-10,000 solut. for stain animal tissues & bacteria (w. add. of acetic acid when nuclei are to be stained).

*Ruthenium Sesquichloride.*—see **Ruthenium Chloride**

## S

### Sabadilla

(Cevadilla; Indian Barley-caustic).—Seeds of *Asagraea officinalis*, Schlechtendal & Chamisso (*Sabadilla officinarum*, Brandt). Melanthaceae.—*Habit.*: Mexico to Guatemala & Venezuela.—*Etymol.*: Spanish "cebadilla," the diminutive of "cebada," barley grains, i.e., the seeds of the plant are smaller than, but greatly resemble, barley.—Dark-brown to black, shining, flat, wrinkled, & slightly winged; inodorous; bitter, acrid taste; powder is strongly sternutatory.—*Constit.*: Veratrine,  $C_{27}H_{51}NO_8$ ; cevadine,  $C_{27}H_{49}NO_8$ ; sabadilline,  $C_{29}H_{51}NO_8$ ; sabadine,  $C_{29}H_{51}NO_8$ ; sabadinine,  $C_{27}H_{45}NO_8$ ; angelic acid; cevadic (methylcrotonic, sabadillic) acid,  $C_5H_7O_2$ ; veratric acid,  $C_9H_{10}O_3$ ; fixed oil.—*Uses.*: Emet.; Cathart.; Vermif.; Insecticide (for vermin in hair).—*Techn.*, as source of veratrine.—*Doses.*: 5-15 grains (0.3-1 Gm.) as a teniaf. or vermif.—Fld. extr., 5-15 ℥ (0.3-1 Ce.).

**Sabadine Merck.**—Cryst. (4000)

Alkaloid from seeds *Asagraea officinalis*, Schlecht. & Cham.— $C_{29}H_{51}NO_8$  (Merck).—Wh., cryst. need.—*Sol.*, sl. W., E.; cas. A.—*Melt.* 238-240° C., w. decomp.—Sternutatory.

**Sabadine Hydrochloride Merck.**—Cryst. (2500)

$C_{29}H_{51}NO_8 \cdot HCl + 2H_2O$ .—Wh. need.—*Sol.* W., A.—*Melt.* 282-284° C., w. decomp.

**Sabadine Nitrate Merck.**—Cryst. (2500)

$C_{29}H_{51}NO_8 \cdot HNO_3$ .—Colorl. cryst.—*Sol.*, diffie. W.

**Sabadine Sulphate Merck** (2500)

$(C_{29}H_{51}NO_8)_2 \cdot H_2SO_4$ .—*Sol.* W., A.

**Sabadinine Merck.**—Cryst. (2500)

Tertiary base (alkaloid) fr. seeds *Asagraea officinalis*, Schlechtendal & Chamisso.—Discovered in laboratory of E. Merck, in 1890.— $C_{27}H_{45}NO_8$ .—Wh. need.—*Sol.* W., A., C.; sl. E.—Devoid of sternutatory properties.

**Sabadinine Bisulphate Merck** (1200)

$C_{27}H_{45}NO_8 \cdot H_2SO_4 + 3H_2O$ .—Wh. need.—*Sol.* W.

**Sabadinine Hydrochloride Merck.**—Cryst. (1200)

$C_{27}H_{45}NO_8 \cdot HCl + aq.$ .—Wh. cryst.—*Sol.* W., A.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Sabal.**—*U. S. P.*

(Saw Palmetto).—Partly dried ripe fruit of *Serenoa serrulata*, Hooker fil. (Sabal S., R. & S.). *Sabalaceae*. *Palmae*.—*Habit.*: South Carolina to Florida & West Indies.—*Etymol.*: Named for Prof. Sereno Watson, of Harvard University. "Serrulata," saw-shaped, refers to the character of the leaf margins.—*Constit.*: Fixed & volatil. oil; resin; sugar.—*Pectoral*; *Sed.*; *Diur.*; *Aphrodis.*—*Uses*: *Bronch.*, *pneum.*, *phth.*, & *sex. debility.*—*Doses*: *Extr.*, 8–20 grains (0.5–1.3 Gm.).—*Fld. extr.*, 60–120 ℥ (4–8 Ce.).

**Sabbatia**

(Quinine Flower; Quinine Plant; Quinine Herb).—Herb of *Sabbatia Elliottii*, Steudel, *Gentianeae*.—*Habit.*: Southern U. S. (Florida).—*Etymol.*: Named for the Italian botanist, Liberato Sabbati (1745), & the American botanist Stephen Elliott (1771–1830).—*Constit.*: Sabbatin (glucoside).—*Antiper.*—*Uses*: Surrogate for quinine in malar. & o. febrile conditions, & as appetizer.—*Doses*: 1–2 fl. dr. (4–8 Ce.) of 1:4 tinct. (dil. alcoh.).—*Fld. extr.*, 15–60 ℥ (1–4 Ce.).—*Aqu. extr.*, 3–8 grains (0.2–0.5 Gm.).

**Sabbatin Merck**

(800

Glucoside fr. *Sabbatia Elliottii*, Steudel (Quinine Flower).—Brownish powd.—*Sol.* W., alkalies.—*Antiper.*; *Antipyr.*—*Uses*: Substit. for quinine in intermit. & remit. fevers.

**Sabina.**—see **Savin****Saccharated Lime.**—see **Calcium Saccharate****Saccharin Merck.**—Refined

(3

(Benzoylsulphonic Imide; Garantose; Glusidum; Gluside; Glycophenol; Glycosine; Saccharinol; Saccharinose; Saccharol; Saxin; Sykose; Zuckerin; Glusimide; Agucarina; Toluolsüss; Anhydroorthosulphaminebenzoic Acid; Benzosulphinide [U. S. P.]; Neo-saccharin).—Fr. toluene or fr. thiosalicylic acid.— $C_7H_5NO_2S$ , or,  $C_6H_4(CO)SO_2NH_2$ .—Wh., odorl., microcryst. powd.; intense, sweet, taste; 550 times as sweet as cane sugar; sweet taste still detected in 1:70,000 solut.—*Sol.* 40 E., 30 A., 400 W. at 15° C.; 28 hot W.; G.; (250 W., 25 A. at 25° C.; 24 W. at 100° C., U. S. P.); insol. C. & B. Alkal. carbonates increase solub. in W.—*Melt.* abt. 220° C.—*Uses*: Cystitis; sweeten food of diabetics & obese subjects, cover taste of bitter & acrid remed., &c.; also as sweetener in household economy, in manuf. champagne, sweetening oils & essences.—*Dose* 2–5 grains (0.12–0.3 Gm.) sev. t. p. d. in solut. w. sod. bicarb.

**do. Merck.**—"Crystal"

(3

Abt. 500 times sweeter than sugar.

**do. Merck.**—"Soluble"

(3

Abt. 500 times as sweet as sugar.

**do.**—Solution.—*N. F.*

Fr. 17.5 Gm. saccharin, 8.75 Gm. sod. bicarb., 62.5 Ce. A., & W. to make 250 Ce.

**Saccharin Tablets Merck**

Each tablet equal in sweetness to a large lump sugar.—*Uses*: Sweeten. tea, coffee, cocoa, &c.

*Saccharinose.* } —see **Benzosulphinide**; **Saccharin**  
*Saccharol.* }

**Saccharose Merck.**—Highest Purity

(5

(Sucrose; Cane Sugar).—Fr. *Saccharum officinarum*, L., *Beta vulgaris*, L., & o. plants.— $C_{12}H_{22}O_{11}$ .—Wh., dry, hard, distinctly cryst. gran.; sweet taste.—*Sol.* 0.5 W., 175 A., 0.2 boiling W., 28 boil. A.—*Melt.* 185° C.—*Demulcent*; *Lentitive.*—*Uses*: Chem. & techn.

**Sacchsse's Solution.**—For glucose

Solut. 18 Gm. mercuric iodide, 25 Gm. potass. iodide, & 80 Gm. KOH in W. to 1000 Ce.—40 Ce. solut. (=0.72 Gm.  $H_2L_2$ ) = abt. 0.15 glucose, or 0.1072 Gm. invert. sugar.—Solut. reduced by boiling.

*Safflor-carmine.* } —see **Carthamin**  
*Safflor-red.* }

**Safflor-yellow**

Yellow coloring matter fr. *Carthamus tinctorius*, L.— $C_{24}H_{30}O_{15}$ .—*Sol.* W., A.; aqu. soluts. rapidly decomp.

*Safflower.*—see **Carthamus**

*Saffron.*—see **Crocus**

*Saffron, American.*—see **Carthamus**

*Saffron Bronze.*—see **Tungsten Bronze, Orange**

*Saffron Substitute.*—see **Victoria Orange**

**Safranine**

(12

(Aniline Rose, or Pink).—By oxid'g paratolylendiamine, aniline & orthotoluidine, in molec. prop.—Brown powd.—*Sol.* W., A.—*Uses*: Techn., dyeing cotton red, mord. w. tannin & tartar emetic; & to vary shade of alizarine-red in calico print.

**Safranine T Merck**

(10

Mixture of toluasafranines & phenoltoluasafranines.—Reddish-brown powd.—*Sol.* W. & A., w. red color.—*Uses*: Investigation of subterranean waters; dyeing cotton; printing calico.

**Safrol Merck**

(5

The odorous constit. of oils sassafras, camphor-tree & o. oils.—Methylene ester of allyl pyrocatechol,  $C_{10}H_{10}O_2$ , or,  $C_6H_3.C_3H_5(OOCH_2)$  [1:3:4].—Colorl., or sl. yellow liq.; pure sassafras odor.—Sp. Gr. 1.108 at 15° C. (1.105–1.106 at 25° C., U. S. P.).—*Sol.* A., E.—*Boil.* abt. 233° C. (U. S. P.).—Solidif. at -20° C.—*Tonic*; *Arom.*; *Carmin.*—*Dose* 1–2 drops.—Also used in perfumery, & in manuf. heliotropin.

*Sage.*—see **Salvia**

*Sage Bush.*—see **Artemisia Frigida**

**Sahli's Borax-Methylene Blue**

0.8 Gm. borax, 0.75 Gm. methylene blue, & 80 Ce. W.—*Uses*: Staining nerve centers deep-

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



blue, cells of ganglia light-green, & glia cells blue. Adapted also for detecting any microbes that may be present.

**Sajodin** (25)

(Calcium Iodobehenate). —  $\text{Ca}(\text{C}_6\text{H}_4\text{O}_2\text{I})_2$ .  
Colorl., odorl., tastel. powd.; 26% I, 44% Ca.  
— *Insol.* in W. & o. usual solvents. — *Uses:* As succed. for potass. iodide, where iodine or iodides are indicated. — *Dose* 15–45 grains (1–3 Gm.) p. d.

*St. Ignatius' Bean.*—see **Ignatia**

*St. James' Wort.*—see **Senecio Jacobæa**

*St. John's Wort.*—see **Hypericum**

*St. Mary's Thistle.*—see **Carduus Marianus**

*Sal Acetosella.*—see **Potassium Binoxalate**

*Sal Alembroth.*—see **Mercury & Ammonium Bichloride**

*Sal Ammoniac.*—see **Ammonium Chloride**

*Sal Enixum.*—see **Potassium Bisulphate**

*Sal Prunelle.*—see **Potassium Nitrate with Potassium Sulphate**

*Sal Sapientia.*—see **Mercury & Ammonium Bichloride**

*Sal Soda.*—see **Sodium Carbonate**

**Salacetol**

(Salicylacetol; Acetolsalicylic Ester). — Artif. glucoside by heat. monochloroacetone w. sod. salicylate. —  $\text{C}_{10}\text{H}_{10}\text{O}_4$ , or,  $\text{C}_6\text{H}_4(\text{OH})(\text{CO}_2\text{CH}_2\text{COCH}_3)$ . — Fine, wh. to faintly reddish, cryst. need.; bitter taste. — *Sol.* 15 A.,  $\text{CS}_2$ , E., C., 30 olive oil; sl. W. — *Melt.* 71° C. — Antisept.; Antirheum. — *Uses:* Summer complaints, diar., dysent., rheum., gout, &c. — *Dose* 15–45 grains (1–3 Gm.), in castor oil, if desired.

**Salen**

Mixt. of ethyl- & methyl-glycollic esters of salicylic acid. — Wh. cryst. at -5° C.; oily liq. at ord. temp. — *Sol.*, eas. A., E., B., & castor oil; diffie. olive oil. — Antirheum. — *Uses:* Rheumat., &c. — *Appl.*, by inunct. in mixt. w. eq. part A., or olive + castor-oil (2:1).

**Salap**

Dried tubers of several spec. of Orchis. Orchidaceæ. — *Habit.*: Europe; Asia Minor. — *Etymol.*: Persian "salap," which, according to Forskall, means "mucilaginous." — *Constit.*: Mucilage; starch. — Nutrient; Demule. — *Uses:* Vehicle for arterial remedies.

**Salibromin**

$\text{C}_6\text{H}_2\text{Br}_2(\text{OH}).\text{COOCH}_3$ . — Wh., tastel. powd. — *Sol.*, solut. alkalis; insol. W. & acids. — 44.5% salicylic acid; 51.6% Br. — Intest. Antisept.; Antipyr.; Antirheum. — *Uses:* Rheum., fever, & in cases where salicylic acid & bromine indicated. — *Dose* 8 grains (0.5 Gm.) single; 30–75 grains (2–5 Gm.) p. d.

**Salicin Merck**

(6)

Glucoside fr. bark of (ex spec. Salix & Populus). —  $\text{C}_{12}\text{H}_{16}\text{O}_6$ , or,  $(\text{OH})_2\text{C}_6\text{H}_4\text{O}_2\text{C}_6\text{H}_4\text{CH}_2\text{OCH}_2$ . — Lustr., wh. need.; v. bitter taste. — *Sol.* 21 W., 71 A. at 25° C.; 33 W. at 80° C.; 22 A. at 60° C.; in ol. E., C., (U. S. P.). — *Melt.* 200–201.5° C. — Tonic; Antiper.; Antirheum. Acts like salicylic acid, but without unpleasant by-effects of latter. — *Uses:* Rheum., malaria, general malaise, & chorea. When taken it decomp. into saligenin & salicylic acid. — *Doses:* As antipyr., 20–30 grains (1.3–2 Gm.); as bitter tonic, 2–5 grains (0.12–0.3 Gm.). — *Max. D.* 150 grains (10 Gm.) p. day.

*Salicylacetol.*—see **Salacetol**

*Salicylalphamethylphenylhydrazine.* — see **Agathin**

**Salicylamide Merck**

(35)

Fr. methyl salicylate, by dry ammonia. —  $\text{C}_7\text{H}_7\text{NO}_2$ , or,  $\text{C}_6\text{H}_4(\text{OH})\text{CONH}_2$ . — Colorl., cryst. plates; tastel. but gritty. — *Sol.* A., E., C., 250 W. — *Melt.* 138° C. — Antisept.; Analg.; Antipyr. — *Uses:* Rheum., fevers, chorea, gout, &c., like salicylic acid. — *Dose* 3–5 grains (0.2–0.3 Gm.) in solution every 3 hrs. — *Max. D.* 15 grains (1 Gm.) p. day.

*Salicylanilide.*—see **Salifebrin**

*Salicylchloroform.*—see **Chloroform Anschütz**

*Salicylic-acid Glycerin-formaldehyde Ester.*—see **Protosal**

*Salicylic-acid Methyleneacetate.*—see **Indoform**

*Salicylic Aldehyde.*—see **Acid Salicylous**

*Salicylparaphenetidin.*—see **Malakin**

*Salicylquinine.*—see **Saloquinine**

**Salicylresorcinolketone Merck**

(400)

(Trioxylbenzophenone). — Fr. salicylic acid w. resorcinol by heat. —  $\text{C}_{20}\text{H}_{10}\text{O}_4$ , or,  $\text{C}_6\text{H}_4(\text{OH})\text{CO} \cdot \text{C}_6\text{H}_2(\text{OH})_2[1:2:4]$ . — Wh. to reddish-wh. leaflets. — *Sol.*, hot A., B.; sl. W. — *Melt.* 133° C. — Antisept.; Antipyr.; Analg. — *Uses:* Typhoid fever, diar.; rheum.; & malaria. — *Dose* 5–15 grains (0.3–1 Gm.). — *Max. D.* 15 grains (1 Gm.) single; 60 grains (4 Gm.) p. day.

**Salifebrin**

(Salicylanilide; Antifebrin Salicylate). —  $\text{C}_{14}\text{H}_9\text{NH}(\text{C}_6\text{H}_4\text{OH})\text{CO}$  (?). — Obt. by heating together salicylic acid & acetanilide. — Wh. powd. — *Sol.* A.; insol. W. — Antipyr.; Analg. — *Dose* 5–15 grains (0.3–1 Gm.).

**Saliformin**

(20)

(Hexamethylenamine Salicylate Merck; Formin Salicylate). —  $\text{C}_8\text{H}_{12}\text{N}_4\text{C}_6\text{H}_4\text{OH.COOH}$ . — Wh., cryst. powd.; pleasant acidulous taste. — *Sol.*, eas. in W. or A. — Uric-acid Solvent & genito-urinary Antisept. — *Uses:* Gout, gravel, cystitis, &c. — *Dose* 5–30 grains (0.3–2 Gm.).

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Saligallol**

(Pyrogallol Disalicylate Knoll).—Resinous solid; marketed only in 33% solut. in acetone.—*Sol.*, in acetone or C.—Skin varnish, of mild pyrogallol effect.—*Uses*: Chiefly as vehicle for eugallol, eurobin, & other dermies.—*Extern.*, 2–15% solut.

**Saligenin**

(100)

(Ortho-oxybenzylalcohol).—Fr. salicin by hydrolysis; also synthetically fr. phenol & formaldehyde.— $C_7H_8O_2$ , or,  $C_6H_4(OH)CH_2OH$ .—Colorl. to yellowish cryst.—*Sol.* A., E.; hot W.—*Melt.* 86° C.—*Antirheum.*; *Antipodagr.*—*Uses*: As of salicylic acid in acute art. rheum. & gout.—*Dose* 8–15 grains (0.5–1 Gm.) every 2–3 hrs. in powd. or hydro-alcoh. solut.

*Salinaphthol.*—see **Betol**

**Salipyrine**

(16)

(Antipyrine Salicylate).—Equiv. parts antipyrine & salicylic acid.— $C_{18}H_{18}N_2O_4$ , or,  $C_{11}H_{12}N_2O_7.C_7H_6O_3$ .—Wh., cryst. powd.; odorl.; sweetish w. bitter after-taste.—*Sol.* A., B., C., E., hot W.—*Melt.* 92° C.—*Antipyr.*; *Antisep.*; *Analg.*—*Uses*: Sciatica, rheum., influenza, chorea, pleurisy, dysmenor.; metrorrhagia, espec. bef. the climacteric.—*Dose* 5–15 grains (0.3–1 Gm.); for metrorrhagia: 15 grains (1 Gm.) 3 t. p. d., before flow, in capsules w. starch.—*Max. D.* 60 grains (4 Gm.) p. day.—*Incomp.*, nitrites.

**Salit**

(5)

Salicylic-acid ester of borneol.— $C_{10}H_{12}O.CO.C_6H_5.OH$ .—Oily liq.—*Sol.*, all prop. A., E., oils; sl. G.; insol. W.—*Decomp.* by alkalies, & in intestines, into its constituents.—*Antirheum.*; *Antineural.*—*Uses*: Muscular & art. rheum., neuralg., pleurisy, &c.—*Appl.*, w. eq. part olive oil, twice p. d. on affected part.

**Salitannol**

Condens. prod. obt. by act. of  $POCl_3$  on mixt. salicylic & gallic acids.— $C_{14}H_{10}O_7$ .—Wh., amorph. powd.—*Sol.*, sl'y A.; insol. W., E., C., B.—*Melt.* 210° C. w. decomp.—*Antisep.*; *Vulnerary.*

*Salithymol.*—see **Thymol Salicylate**

**Salix Fragilis**

(Brittle Willow; Snap Willow; Crack Willow).—Bark of *Salix fragilis*, L. Salicaceae.—*Habit.*: Europe; Southwestern Asia; naturalized in U. S.—*Etymol.*: Fr. Celtic "sal," near, & "lis," water, i.e., its favorite place of growth; or, fr. Lat. "salio," to spring out, i.e., its rapid growth.—*Constit.*: Salicin; tannin.—*Astring.*; *Febrif.*—*Dose*: Aqu. extr., 5–15 grains (0.3–1 Gm.).

**Salix Nigra**

(Swamp Willow; Pussy Willow; Black Willow).—Bark of *Salix nigra*, Marsh. Salicaceae.—*Habit.*: Canada to Florida & California.—*Etymol.*: See preceding.—*Constit.*: Salicin; tannin.—*Sexual* Sedat.; *Tonic*; *Antiper.*; *Astring.*—*Uses*: Gonorr., spermator., ovarialgia, dyspep.,

rheum., &c.—*Extern.*, as appl. to ulcers.—*Doses*: 45–90 grains (3–6 Gm.).—Fld. extr., 5–60 m (0.3–4 Cc.).

*Salochinin.*—see **Saloquinine**

*Salocoll.*—see **Phenocoll Salicylate**

**Salol Merck**

(2)

(Phenyl Ester of Salicylic Acid; Phenyl Salicylate).—React.-prod., salicylic acid w. phenol & phosphorus pentachloride.— $C_{14}H_{10}O_3$ , or,  $C_6H_4(OH).COOC_6H_5[1:2]$ .—Wh., cryst. powd.; faint aromatic odor.—*Sol.* 0.3 E., C., 19 A., B., fatty oils at 15° C.; (2,333 W., 5 A. at 25° C., U. S. P.).—*Melt.* 42–43° C.—*Antisep.*; *Antirheum.*; *Antipyr.*; &c.—*Uses*: *Intern.*, typhoid fever, diar., dysent., ferment. dyspep., rheum., grip, & cystitis.—*Extern.*, wounds, burns, sores, &c. Coating for enteric pills; such pills should be taken one hour or more after meals & no oil w. them. The remedy should not be given in gelat. capsules, because it is apt to crystallize in the intestines & form salol concretions.—*Doses*: 3–15 grains (0.2–1 Gm.); as antipyr., 30–45 grains (2–3 Gm.).

**Salol Camphorated Merck**

(12)

Mixt. 3 parts salol w. 2 parts camphor.—Yellowish, oily liq.—*Sol.* A., E., C., oils.—*Local Anesth.*; *Antisep.*; *Analg.*—*Uses*: Toothache, earache, neural., rheum., typhoid fever, gastric affect., & skin diseases.—*Dose* 3–10 grains (0.2–0.6 Gm.).—*Caut.* Keep well stoppered.

**Salophen**

(20)

(Acetylparamidosalol; Acetamidosalol; Acetylparaminophenyl Salicylate).— $C_{15}H_{13}O_4N$ , or,  $C_6H_4.OH.COOC_6H_4NH.COCH_3$ .—Fine, white scales; odorl.; tastel.—51% salicylic acid.—*Sol.* A., E., alkal.; hot W.—*Melt.* 187–188° C.—*Antisep.*; *Antipyr.*; *Analg.*; *Antirheum.*; *Keratolytic.*—*Uses*: Rheum., gout, typhoid fever, diar., dysent., chorea, &c.—*Extern.*, psoriasis & other itching skin diseases, in 10% oint.—*Dose* 5–15 grains (0.3–1 Gm.).—*Max. D.* 20 grains (1.3 Gm.), single; 90 grains (6 Gm.) p. day.

**Saloquinine Merck**

(25)

(Salochinin; Salicylquinine; Quinine Salicylic Ester).— $C_6H_4.OH.CO.O.C_{20}H_{21}N_3O$ .—Tastel., cryst. powd.—71.3% quinine.—*Sol.* A., E.; insol. W.—*Melt.* 130° C.—*Antiper.*; *Antimycotic.*; *Febrif.*; *Antineural.*; *Analg.*—*Uses*: Typhoid & other fevers, neural., &c., instead of quinine. 2 grains (0.12 Gm.) saloquinine = 1 grain (0.06 Gm.) quinine.—*Dose* 8–30 grains (0.5–2 Gm.).

**Saloquinine Salicylate Merck**

(25)

$C_6H_4.OH.COOC_{20}H_{21}N_3O.C_6H_4.OH.CO.OH$ .—Wh. cryst.—*Sol.*, sl. W.—*Melt.* 179° C.—*Antineural.*; *Antirheum.*—*Uses*: *Neuritis*, *neuritis*, acute art. rheumat., lancinating pains in tabes, gonorrheal inflammations, &c.—*Dose* 15 grains (1 Gm.) 3 t. p. d.

*Salosparin.*—see **Smilacin**

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Salt, Carlsbad. True**

(Sprudel Salt).—Fr the Carlsbad water by evaporation. Colorl. crys. *Sol. W.*—Cathartic. *Uses:* Chronic constip., disorders of liver, diabetes, gout, &c.—*Dose* 1-8 dr. (4-30 Gm.) once or twice p. d. in W., at morning.

**Salt, Carlsbad. Artificial. N. F.**

1 (Dry): 44 sod. sulphate & 2 potass. sulphate w. 18 sod. chloride & 36 sod. bicarbonate; 2 (Crys.): 2 potass. sulphate, 18 sod. chloride, 64 sod. carb. crys., 88 sod. sulph. crys., & 50 W.—*Sol. W.*—*Uses:* Chron. constip., disorders of liver, diabetes, gout, &c.—*Dose* 1-8 dr. (4-30 Gm.) in a glass of warm water.

do.—Artificial, Effervescent. N. F.

18 artif. Carlsbad salt (dry), 41 saccharated sod. bicarb., & 41 saccharated tartaric acid.

**Salt, Gregory's**

Mixt. morphine hydrochloride (approx. 97.75%) & codeine hydrochloride (approx. 2.25 %).—Wh. powd.—*Sol. W.*—*Uses & Doses:* As of morphine hydrochloride.

**Salt, Kissingen, Artificial. N. F.**

17 potass. chloride, 357 sod. chloride, 59 magn. sulph. (anhydr.), & 107 sod. bicarb.

do.—Effervescent.—N. F.

28 artificial Kissingen salt, 36 saccharated sodium bicarbonate, and 36 saccharated tartaric acid.

**Salt, Microcosmic.—see Sodium & Ammonium Phosphate**

**Salt, Schleich's.—Tablets**

	No. 1 Strong	No. 2 Normal	No. 3 Weak
Cocaine Hydrochloride	0.2	0.1	0.01
Morphine "	0.025	0.025	0.005
Sodium Chloride	0.2	0.2	0.2

Used in the infiltration-anesthesia by Schleich's method. Each tablet, before use, is dissolved in 100 Cc. sterilized water; the solution is then ready for use without further preparation.

**Salt, Vichy.—Artificial.—N. F.**

846 sod. bicarb., 38.5 potass. carb., 38.5 magn. sulph. (anhydr.), & 77 sod. chloride.

do.—Artificial, Effervescent.—N. F.

21 artif. Vichy salt, 38 saccharated sod. bicarb., & 38 saccharated tartaric acid.

**Salt of Sorrel.—see Potassium Binoxalate**

**Salt of Tartar.—see Potassium Carbonate**

**Saltpter.—see Potassium Nitrate**

**Salubrol**

(Methylenediantipyrine Tetrabromide).—C<sub>23</sub>H<sub>24</sub>O<sub>2</sub>N<sub>4</sub>Br<sub>4</sub>.—Orange-yellow powd.—*Sol. A.*—

Melt 155° C.—Antisept. instead of iodoform.—*Uses:* A. gargle, or as dusting powd.

**Salifer.—see Sodium Silicofluoride**

**Salumin.—see Aluminum Salicylate**

**Salumin, Sol. dle.—see Aluminum Salicylate, Ammoniated**

**Salvia. U. S. P.**

(Sage; Garden Sage).—Dried lvs. of *Salvia officinalis*, L. Labiate.—*Habit.*: Southern Europe; cult. Eng., France, U. S., Italy, &c.—*Etymol.*: Fr. Lat. "salvere," to save, refer. to its healing prop.—*Constit.*: Volat. oil, resin, tannin, bitter prin., gum. *Stim.*; Tonic; Astring.; Vulner.; Condiment.—*Uses:* Chiefly as condiment—*Extern.*, in form of infus. for ulcers of mouth & throat, in nasal sores, &c. Also as gargle.

**Sambucus**

(Elder, American Elder; Sweet Elder).—Flowers of *Sambucus canadensis*, L. Caprifoliaceae.—*Habit.*: U. S., east of Rocky Mountains.—*Etymol.*: See *Sambucus nigra*.—*Constit.*: Volat. oil; resin; fat; mucilage; tannin.—*Stim.*; Carmin.; Diaphor.; Sudorif.; Diuret.—*Uses:* Febrile affect., scrof., rheum., syph., dropsy, &c.—*Extern.*, as fomentation, poultice, &c.—*Dose* 30-60 grains (2-4 Gm.) as infus., fld. extr., &c.

**Sambucus Ebulus.—see Ebulus**

**Sambucus Juice Merck (2**

(Elderberry Juice).—Fr. berries *Sambucus nigra*, L.; preserv. w. alc.—*Diur.*; Refrig.; Alter.—*Uses:* Kidney & heart dis. w. dropsy; refresh drink in fever; also in syph., epilepsy, & var. o. chronic dis.—*Dose* 60-150 ʒ (4-10 Cc.).

**Sambucus Nigra**

(European Elder; Common Elder; German Elder; Parsley Elder).—Bark, berries, flowers, lvs., & root of *Sambucus nigra*, L. Caprifoliaceae.—*Habit.*: Europe; Northern Africa to Middle Asia.—*Etymol.*: Fr. Grk. "sambyx," a red, minium-colored dye, & referring to the color of the juice of the berries. Or, fr. Lat. "sambuca," a term applied to various wind & string instruments, i.e., the elder, freed fr. its soft pith, leaves a tube which was used as an instrument.—*Constit.*: Bark: Valeric acid; volat. oil; tannin; resin; gum.—*Berries:* Tannin; coloring-matter.—*Flowers:* Volat. oil; pectin.—*Lvs.*: Tannin; resin.—*Root:* Soft resin.—*Uses:* Bark: Diuret. in nephritis, & in affect. of heart & liver.—*Root:* Diur. & Emeto-cathartic.—*Berries:* Manuf. of vinegar & artif. wine.—*Doses:* Bark: 6 dr. (25 Gm.) in decoct.—Fld. extr., 5-8 fl. dr. (20-30 Cc.).

**Sand Sedge.—see Carex**

**Sand Spurrey.—see Arenaria**

**Sandarac**

Resin fr. *Callitris quadrivalvis*, Vent. Coniferae.—*Habit.*: Morocco.—*Etymol.*: Grk. "sanda-

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



rake," by which name Aristotle had already designated the resin.—Brittle, elongated, light-yellow tears; translucent, w. vitreous fract.; crumble to powd. when masticated.—*Sol.* A., E., amyl alcohol, acetone, & in hot caustic alkalies; partly in C., volat. oils, oil turp., CS<sub>2</sub>; insol. benzin, B.—*Constit.*:—*Habit.*: Volat. oil; 3 resins; bitter principle.—*Uses*: As incense, & techn. for tooth cements, lacquers, varnishes, &c.

*Sandwort, Red.*—see *Arenaria*

*Sanguinaria*.—U. S. P.

(Bloodroot; Red Puccoon; Red-root; Puccoon Root; Tetterwort).—Dried rhizome of *Sanguinaria canadensis*, L. Papaveraceae, collected after the death of the foliage.—*Habit.*: North America.—*Etymol.*: Lat. "sanguis," blood, i.e., all parts of the plant contain a blood-red juice. "Canadensis" refers to its habitat, Canada.—*Constit.*: Sanguinarine; chelerythrine, C<sub>21</sub>H<sub>17</sub>NO<sub>4</sub>; protopine; beta-homoechelidonine.—Expector.; Emmen.; Emetic; Alter.; Sialagogue; Sternut.; Tonic.—*Uses*: Coughs, & to produce emesis.—*Doses*: 1–8 grains (0.06–0.5 Gm.) in powd.—Aqu. extr., 1/6–1/3 grain (0.01–0.02 Gm.) expector.; 1 1/2–3 grains (0.1–0.2 Gm.) emetic.—Fld. extr., 2–15 M (0.12–1 Cc.).—Tinct., 15–30 M (1–2 Cc.).—*Antid.*, stomach tube, diffusible stimulants, amyl nitrite, morphine, atropine.

*Sanguinaria Herb*

(Blood Geranium).—Geranium sanguineum, L. Geraniaceae.—*Habit.*: Middle Europe.—*Etymol.*: Lat. "sanguis," blood, i.e., the plant was formerly highly esteemed as a remedy in hemorrhages.—*Constit.*: Tannin.—Astring.; Styptic.—*Uses*: Diar. & dysent.

*Sanguinarine Merck* (456)

Alkaloid fr. rhizome *Sanguinaria canadensis*, L.—C<sub>20</sub>H<sub>15</sub>NO<sub>4</sub> + H<sub>2</sub>O, or, C<sub>19</sub>H<sub>12</sub>NO<sub>3</sub>.OCH<sub>3</sub> + H<sub>2</sub>O.—Reddish-gray, cryst. powd.—*Sol.* C., amyl alc.; sl. in A., E.; insol. W.—Stim.; Tonic; Expector.; Purg.; Emetic.—*Uses*: Dyspep., debil., colds, coughs, & to prod. vomiting.—*Doses*: Expector., 1/12–1/8 grain (0.005–0.008 Gm.); emetic, 1/2–1 grain (0.03–0.06 Gm.). Average dose, 1/4 grain (0.015 Gm.).—*Caut.* Poison!

*Sanguinarine Nitrate Merck* (456)

C<sub>20</sub>H<sub>15</sub>NO<sub>4</sub>.HNO<sub>3</sub>.—Orange-yellow, cryst. need.—*Sol.* W., A.—*Uses & Doses*: As of the alkaloid.

*Sanguinarine Sulphate Merck* (570)

(C<sub>20</sub>H<sub>15</sub>NO<sub>4</sub>)<sub>2</sub>.H<sub>2</sub>SO<sub>4</sub>.—Orange-red, cryst. powd.—*Sol.* W., A.—*Uses & Doses*: As of the alkaloid.

*Sanguis Draconis.*—see *Dragon's Blood*

*Sanicle.*—see *Sanicula*

*Sanicula*

(European Sanicle; Wood Sanicle; Wood March; Self-Heal).—Herb & root of *Sanicula Europaea*, L. Umbelliferae.—*Habit.*: Europe.—*Etymol.*: Lat. "sanare," to heal, i.e., the plant was formerly used as a vulnerary. "Europea"

refers to its habitat, Europe.—*Constit.*: Bitter principle; tannin.—Vulnerary; Resolvent for sanguineous extravasations; Astring.

*Sanoform*

(Diiodosalicylic-acid Methyl-ester).—C<sub>6</sub>H<sub>2</sub>I<sub>2</sub>-(OH)CO<sub>2</sub>CH<sub>3</sub>.—Obt. by action of iodine on methyl salicylate.—Colorl., odorl., tastel. powd.—*Sol.* A., E.—*Melt.* 110–110.5° C.—Antisep.; Deodorant.—*Uses*: As dusting powd. in syphilitic ulcers, blennor., &c., or in 10% oint.

*Santalin Merck* (30)

(Crude Santalic Acid).—Coloring-matter fr. wood *Pterocarpus santalinus*, L. fil. (Red Saunders).—C<sub>15</sub>H<sub>11</sub>O<sub>5</sub>.—Red. powd.—*Sol.* A., E., acetic acid, alkalies.—*Uses*: Chem. analysis as indicator (alkalies=violet; acids=red).

*Santalol Salicylic-acid Ester.*—see *Santyl*

*Santalum Album*

(White Saunders; Yellow Saunders; Lignum Santalinum Citrinum).—Wood of *Santalum album*, L., & other spec. of *Santalum*. Santalinæ.—*Habit.*: East India.—*Etymol.*: See *Santalum Rubrum*.—*Constit.*: Volat. oil; resin; tannin.—*Uses*: As incense, for fumigating, & as source of the oil (latter used in gonorr.).

*Santalum Rubrum.*—U. S. P.

(Red Saunders; Ruby Wood; Red Santal Wood).—Heart-wood of *Pterocarpus santalinus*, L. fil. Leguminosae. Papilionaceae.—*Habit.*: East Indies.—*Etymol.*: Fr. "ssandal," the Arabic name for the wood; Malayan "tsjendan." Persian "sandul," useful.—*Constit.*: Santalin (santalinic acid), C<sub>15</sub>H<sub>11</sub>O<sub>5</sub>; santol, C<sub>8</sub>H<sub>6</sub>O<sub>2</sub>; pterocarpin, C<sub>20</sub>H<sub>16</sub>O<sub>6</sub>; homopteroecarpin, C<sub>24</sub>H<sub>24</sub>O<sub>6</sub>; resin; tannin.—Tonic; Astring.—*Uses*: Chiefly techn. for coloring, tinctures, &c., & as a dye.

*Santolina.*—see *Iva Flowers*

*Santonica.*—U. S. P.

(Levant Wormseed; Semen Cinæ).—Dried, unexpanded flower heads of *Artemisia pauciflora* (A. maritima, var. pauciflora, Ledebour), Weber. Compositae.—*Habit.*: Persia; Turkestan; Russia.—*Etymol.*: "Santonica" fr. Lat. "santonicus," fr. the Santoni, a tribe inhabiting southern Gaul (Aquitania). Grk. "santonion," their wormwood. "Artemisia" fr. Grk. "Artemis," the Roman goddess Diana, to whom Artemisia Absinthium was dedicated, owing to its use in hastening puberty.—*Constit.*: Santonin, C<sub>17</sub>H<sub>15</sub>O<sub>3</sub> (1–2°C); volat. oil (2°C); artemisin, C<sub>15</sub>H<sub>15</sub>O<sub>4</sub>; resin; gum.—Anthelmintic; Stim.; Emmen.; also as source of santonin.—*Doses*: 10–40 grains (0.6–2.5 Gm.).—Alec. extr., 2–5 grains (0.12–0.3 Gm.).

*Santonin Merck.*—Cryst. & Powder (17)

(Anhydrous Santoninic Acid).—Santoninic-acid lactone fr. unexpanded fl. heads *Artemisia pauciflora*, Weber (Santonica).—C<sub>15</sub>H<sub>15</sub>O<sub>3</sub>, or,  $\text{C}(\text{C}(\text{CH}_3)_2)\text{CO}\text{CH}_2\text{C}(\text{CH}_3)_2\text{C}(\text{CH}_3)_2\text{CH}_2\text{CO}\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_2$ .—Lustr., rhomb., wh. to pale

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



straw-col. prisms or plates, or wh. to d. yellowish powd., sl.ly bitter taste.—*Sol.* 4 C., 41 A., 110 H., at 15° C.; 5,300 W., 34 A., 78 H., 25 U. at 25° C.; 800 W. at 80° C.; 5 A. at 60° C., 1 P. S. P.

—*Melt.* 170.3° C. (U. S. P.).—*Antichelmintic*; Eumen.; *Tonic*—*Uses*: Worms, ascocor., epilepsy, lancinating pains in tabes, & as stim. to optic nerve in tobacco amaurosis.—*Dose*: 2-4 grains (0.12-0.25 Gm.); children of 2 yrs.  $\frac{1}{4}$ ,  $\frac{1}{2}$  grain (0.015-0.03 Gm.) cautiously administered, as large doses may develop toxic symptoms; in *tabes*, 1 grain (0.06 Gm.) 3 t. p. d.; *epilepsy*,  $\frac{1}{2}$  grains (0.1 Gm.) 3 t. p. d.—*Max. D.* 5 grains (0.3 Gm.) p. d.—*Antid.*, enem. of hydrated chloral; cold affusions.—*Caut.* Poison! Turns yellow in the light. Keep in the dark, or in amber bottles.

*Note*.—This is a perfectly pure article, free from the adulterations not uncommon to the ordinary santonins of the market; it is, hence, a superior preparation, & should be used to the exclusion of inferior products.

### Santoninoxim Merck (250

Fr. santonin, by an alcoh. solut. of hydroxylamine hydrochloride &  $\text{CaCl}_2 \cdot \text{C}_2\text{H}_5\text{O}_2(\text{NOH})$ .—Wh., cryst. powd.; less toxic (acc. to Coppola) than santonin.—*Sol.* A.; sl. W.—*Melt.* 216-217° C.—*Antichelm.*; *Antisep.*—*Uses*: Vermicide.—*Dose*: Children, 2-3 years,  $\frac{3}{4}$  grain (0.05 Gm.); 4-6 years,  $1\frac{1}{2}$  grains (0.1 Gm.); 6-9 years, 2 grains (0.12 Gm.); adults, 5 grains (0.3 Gm.), divided into two doses & taken at intervals of 1 or 2 hours, followed by a cath. Repeat for 2 or 3 days. Give in wafers or suspended in water.

### Santyl Knoll (30

(Santalol Salicylic Acid Ester).—Alm. odorl. & tastel., oily liq.; 60% santalol.—*Uses*: Gonorr.—*Dose* 30 m (2 Cc.) in milk.

### Sapogenin Merck (750

(Sapogenol).—Fr. saponin by boil. w. dil. acids.— $\text{C}_{41}\text{H}_{72}\text{O}_{12}$ .—Wh. need.—*Sol.*, sl. A., E.; insol. W.—*Melt.*, abt. 257° C.

*Sapogenol*.—see *Sapogenin*

### Saponaria

(Soapwort; Soaproot; Fuller's-herb; Bruisewort; Bouncing Bet).—Herb & root of *Saponaria officinalis*, L. Caryophyllaceae.—*Habit.*: Europe to middle Asia; natur. in U. S.—*Etymol.*: Lat. "sapo," soap, referring to the use of the root as a detergent.—*Constit.*: Saponin; sapotoxin.—*Herb.*: Emeto-cathartic; Antihyperptic; Antirheumat.; Antisyphil.; Antiscrof.; Emmen.—*Root*: Aper.; Diaphor.; Diuret.; Resolv.; Alter.; Expectorant.—*Uses*: Coughs, vener., & cutan. affect., scrof., gonorr., &c.—*Techn.* as detergent.—*Doses*: Alcoh. extr., 8-20 grains (0.5-1.3 Gm.); *Max. D.* 60 grains (4 Gm.) single; 3 dr. (12 Gm.) daily.—*Fld. extr.*, 40-120 m (2.5-8 Cc.).

*Saponaria Alba*.—see *Gypsophila*

### Saponin Merck.—Highest Purity (40

Glucoside fr. *Saponaria officinalis*, L., & existing in a plant, particularly in bark of Quillaja *Saponaria*, *Saponaria officinalis*, &c.— $\text{C}_{41}\text{H}_{72}\text{O}_{18}$  (Rohleder);  $\text{C}_{40}\text{H}_{70}\text{O}_{18} + \text{H}_2\text{O}$  (Kruskal).—Wh., amorph. powd.; pung., disagre. taste; water foams when shaken with it. Consists probably chiefly of sapotoxin.—*Sol.*, cas. W.—*Expector.*; *Emetic*; *Alter.*. Acts like, but is less toxic than, sapotoxin.—*Uses*: *Techn.*—*Antid.*, cholesterin.

do. Merck.—Purified (12

do. Merck.—Crude (8

Extractive fr. *Saponaria officinalis*, L., & consisting chiefly of sapotoxin & lictosin besides salts, & having the general formula  $\text{C}_n\text{H}_{2n-8}\text{O}_{10}$ .—Yellowish-gray to brown powd.—*Sol.* W., with foaming.—*Uses*. As foam producer in beverages like lemonade, mineral waters, wines, & for emulsifying oil. The foaming of the commercial product is caused by either the sapotoxin alone or the quillajic acid. Also used as detergent in textile industries, as size, substitute for soap, paste, &c.

do. Merck.—Fr. Guaiac Bark (80

### Sapota

(Sapotilla; Sapota Plum; Bully Tree).—Fruit of *Achras Sapota*, L. Sapotaceae.—*Habit.*: South America; cultiv. in Arabia.—*Etymol.*: "Sapota" is the South American name of the plant.—*Constit.*: Tannin.—*Antiper.*; *Diuret.*

### Sapotoxin Merck (300

Glucosidal subst'ce fr. commercial saponin, & also fr. inner bark Quillaja *Saponaria*, Molina.—The sapotoxins fr. *Saponaria* & Quillaja are identical.— $\text{C}_{17}\text{H}_{26}\text{O}_{10} + \text{H}_2\text{O}$ .—Wh. powd.; h'ly poison.—*Sol.* W., dil. A.—The aqueous solut. foams strongly. Even 1:10,000 solut. capable of dissolving red blood corpuscles. On ingestion into stomach, acts as emetic.—*Caut.* Poison!

### Sarcine Merck (5000

(Hypoxanthine; Sarkine).—Diuretic fr. the animal organism. Usually prep. fr. meat.— $\text{C}_5\text{H}_7\text{N}_3\text{O}_2$ .—Wh., microcryst. powd.—*Sol.*, acids, alkalies, W., & A.

### Sarcine Hydrochloride Merck (5500

$\text{C}_5\text{H}_4\text{N}_4\text{O}_2\text{HCl} + \text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W.

### Sarcosin Merck (1400

(Methylaminoacetic Acid; Methylglycocol).—Deriv. of creatine.— $\text{C}_3\text{H}_7\text{NO}_2$  or  $\text{CH}_3\text{NH}_2\text{CH}_2\text{CO}_2\text{H}$ .—Deliq., transp. cryst.; sweetish taste.—*Sol.* W.; sl. A.—*Melt.* 210-215° C.—*Uses*: Uric acid diathesis, rheumat., arthritis, Bright's dis., &c.—*Dose* 8-15 grains (0.5-1 Gm.) 2-4 t. p. d.

*Sarkine*.—see *Sarcine*

### Sarracenia

(Pitcher Plant; Fly-trap; Side-saddle Plant; Huntsman's Cup; Water Cup).—Lvs. & root of

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Sarraecenia purpurea*, L. Nymphaeaceae. *Sarraeceniaceae*.—*Habit.*: Canada; Eastern U. S.—*Etymol.*: Named for Dr. J. A. Sarraasin, of Quebec (1750).—*Constit.*: Sarraecine; acrylic acid; tannin.—*Uses*: Diur.; Tonic; Lax.; Stim.; Prophylactic in smallpox.—*Dose*: *Lvs.*: 20–30 grains (1.3–2 Gm.) in powd. or infus.

### Sarsaparilla.—U. S. P.

Dried root of *Smilax officinalis*, Kunth; *S. ornata*, Hooker; *S. medica*, Chamisso & Schlechtendal; *S. papyracea*, DuRoi; &c. spec. of *S. Liliaceae*. *Smilacaceae*.—*Habit.*: Honduras; Jamaica; Mexico (Vera Cruz); Brazil; Guatemala.

—*Etymol.*: Spanish "sarsa," Portuguese "zarza," a bramble, & Portug. "parcilha," dim. of "parra," vine, i.e., a small, brambly, vine-like plant. Or, fr. "Parillo," the name of a physician who is said to have discovered & used it. "Smilax," fr. Grk. "smilax," the yew, fr. "smile," a scraper, i.e., the stems have prickles. "Medica," fr. Lat. "medius," medicinal, curative. "Papyracea," fr. Grk. "papyrus," paper, i.e., the leaves & pith were used to write upon.—*Constit.*: Smilacin (sarsaparilla-saponin); parillin; resin; saponin; volat. oil.—*Antisyph.*: Diur.; Alter.; Diaph.; Tonic.—*Uses*: As "blood purifier" in syph., scrof., rheumat., & skin diseases (usually w. mercury & potass. iodide).—*Doses*: 30–120 grains (2–8 Gm.).—*Alcoh. extr.*, 5–20 grains (0.3–1.3 Gm.).—*Fld. extr.*, 30–120 ℥ (2–8 Ce.).—*Comp. Fld. Extr.*, 30–120 ℥ (2–8 Ce.).

### Sassafras.—U. S. P.

(Saxifrag; Ague-tree; Cinnamon-wood; Saloop).—Dried bark of root of *Sassafras variifolium* (Salisb.), O. Kuntze, Lauraceae, collected in early spring or autumn, & deprived of periderm.—*Habit.*: North America.—*Etymol.*: Fr. Spanish "sassafras," saxifrage, because of reputed gravel-resolvent properties. Or, fr. Lat. "saxum," a stone, & "frangere," to break, i.e., the plant grows in crevices in rocks.—*Irreg. fragm.* deprived of gray corky layer; bright rust-brown, soft, fragile, w. short, corky fract.; inner surface smooth; strongly fragrant; sweetish, aromat., somewh. astring. taste.—*Constit.*: Volat. oil; sassafridin; tannin; gum; resin; wax.—Wood contains volat. oil, & tannin.—*Aromat.*; Stim.; Astring.; Diaph.; Diur.; Alter. (in syph.); also extern. in rheu. poisoning.—Wood is used as Alter. & Diur.—*Doses*: 30–180 grains (2–12 Gm.).—*Aqu. extr.*, 2–8 grains (0.12–0.5 Gm.).—*Fld. extr.*, 30–60 ℥ (2–4 Ce.).

### Sassafras Pith.—U. S. P.

Dried pith of *Sassafras variifolium*, O. Kuntze, Lauraceae.—*Habit.* & *Etymol.*: See Sassafras.—More or less cylindric, oft. curved pieces; variab. length; abt.  $\frac{1}{8}$  in. (5 Mm.) diam.; whitish, w. light & spongy; sl. odor; mucil. taste.—*Constit.*: Much gum; some volat. oil.—*Demule*.—*Uses*: As mucil. in dysent., & inflam. of air passages & stomach; also as collyr. in acute conjunct., & as vehicle for active remedies.

### Sassy Bark

(Saucy Bark; Mancona Bark; Ordeal Bark; Red-water-Tree Bark; Casca Bark; Saxon Bark; Doom Bark; Teli; Bondou).—Bark of *Erythrophloeum guineense*, Don. Mimosaceae.—*Habit.*: Central & western Africa.—*Etymol.*: Fr. Grk. "erythros," red, & "phloios," bark.—Flat or curved pieces abt.  $\frac{1}{5}$  in. (5 Mm.) thick; extern., warty, fissured, red-brown, & hard, with whitish spots; fract. coarsely granular & fibrous; inodor.; bitter, astring. & acid taste.—*Constit.*: Erythrophloeine,  $C_{28}H_{42}NO_7$  (or,  $C_{28}H_{45}NO_7$ ); tannin; gum; resin.—*Cardiac tonic*; Astring.; Diaph.; Nar.; Local Anesth.; Succeed. for Digitalis; Sternut.—Natives use the bark in ordeals, & as an arrow poison.—*Uses*: Diar., dysent., & colic.—*Doses*: 15 ℥ (1 Ce.) of 1:4 tinct.; 5–10 ℥ (0.3–0.6 Ce.) of fld. extr.—*Antid.*, emetics, stomach siphon, stimulants.

### Satureja

(Summer Savory).—Herb of *Satureja hortensis*, L. Labiate.—*Habit.*: Europe; widely cultiv. & natur.—*Etymol.*: Lat. "saturare," to saturate, to satisfy, i.e., the herb was used by the ancient Romans as food.—*Constit.*: Volat. oil.—*Stim.*; Carmin.; Emmen.—*Uses*: Tuberculous; also as spice, & in baths.—*Dose*: Fld. extr., 30–60 ℥ (2–4 Ce.).

### Savin.—U. S. P.

(Sabina).—Tops of *Juniperus Sabina*, L. Coniferae.—*Habit.*: Europe; northern Asia; North America south to New York & Montana.—*Etymol.*: Named for the Sabines of old, who are said to have used the branches of the plant as an abortifacient. "Juniperus," fr. Celtic "juncus," thorny, rough, referring to the leaves; & "parere," to produce, i.e., the young shoots & leaves of the Juniper family continually replace the old.—*Constit.*: Volat. oil; resin; tannin.—*Abortifac.*; Emmen.; Diur.; Vermif.—*Uses*: Intern., in amenor., rheumat., gout & worms.—*Extern.*, for warts, indol. ulcers, & tinea capitis.—*Doses*: 5–15 grains (0.3–1 Gm.).—*Max. D.* 15 grains (1 Gm.) single; & 45 grains (3 Gm.) per day.—*Alcoh. extr.*,  $\frac{1}{2}$ –2 grains (0.03–0.12 Gm.); *Mar. D.* 3 grains (0.2 Gm.) single, 15 grains (1 Gm.) daily.—*Fld. extr.*, 3–8 ℥ (0.2–0.5 Ce.).—*Antid.*, mustard, emetics, castor oil, brandy, &c.

*Savory, Summer*.—see *Satureja*

*Saw Palmetto*.—see *Sabal*

*Saxin*.—see *Benzosulphinide*; *Saccharin*

*Saxoline*.—see *Petrolatum*

### Scabious

(Scabiosa; Pincushion Flower; Field Scabious; Blue Buttons; Gipsy Rose).—*Scabiosa* (Knautia) arvensis, L. Dipsaceae.—*Habit.*: Europe; natur. in eastern U. S.—*Etymol.*: Lat. "scabies," scab, itch, mange, i.e., the plant was used in skin dis. "Arvensis," pertaining to fields.—*Constit.*:

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

Better effect on tinea. — *Uses*. In pulmonary & cutaneous diseases.

*Scammony*. — see **Resin Scammony**

## Scammony

Gum-resin exudate fr. root *Convolvulus Scammonia*, L. *Ethiops*. See *Scammony Root*. — Fresh angular pieces or cr. cakes, greenish-gray or brownish-black, v. brittle, angular or splintery fract., porous, resinous luster, intern. brownish-black, chert-like color, & acrid taste. — *Const.* Scammonin (up to 95%), gum. — *Cathartic*. — *Dose*. Dropsy, & in cerebral dis. w. o. remed. — *Dose*. 10-20 grains, 0.6-1.3 Gm.).

## Scammony Root

Root of *Convolvulus Scammonia*, L. *Convolvulacea*. — *Habit.* Asia Minor; Greece. *Ethymol.* Arabic "scamunia," Grk. "scammonia," fr. "scamnia," the substance unearthed or dug out, i.e., the substance obtained fr. the root. Or, fr. Grk. "skambos," crooked, i.e., the stems are crooked. "Convolvulus" fr. Lat. "convolvere," to roll together, to entwine, referring to the plant's habit. — *Const.* Scammonin (jalapin). — *Drast.* Purgat.; Hydragogue; Cholagogue.

*Scammony Senna*. — see **Periploca**

*Scarlet Red*. — see **Biebrich Scarlet**

## Scarlet Red Merck

(29

(Ponceau). — Sodium salt of amidoazobenzene-azobetanaphtholdisulphonic acid. — Reddish-brown powd. — *Sol.* W.; solut. yellowish-red.

*Schan-Ki*. — see **Eumenol**

*Scheib's Green*. — see **Copper & Hydrogen Arsenite**

*Scheidium*. — see **Tungsten**

## Scheibler's Reagent. — For alkaloids & albumen

Mixt. of solut. sod. tungstate w. a 25% phosphoric acid. — Gives ppt's w. alkaloids & albumen. — Capable of detect. strychnine in 1:200,000 solut., & quinine in 1:100,000 solut.

*Schiff's Reagent*. — see **Ammonium Thioacetate**

## Schinus

(Pepper Tree; Pepper Shrub; Peruvian Mastie Tree; Aro-Aira). — Seed of *Schinus molle*, L. *Terebinthaceae*. — *Anacardiaceae*. — *Habit.* Brazil; Peru; Chile. — *Ethymol.* Grk. "schizein," to cut into, referring to the incisions made in the rind in order to allow the resin to exude. — *Const.* Volat. oil; resin; tannin. — *Uses*: As substitute for eubeb in gonorr.

## Schlagdenhauffen's Reagent. — For alkaloids

Mixt. eq. parts tinct. guaiac & satur. solut. mercuric chloride. — Affords a blue color w. alkaloids but not w. glucosides.

*Schleich's Salt*. — see **Salt, Schleich's**

*Schlipp's Salt*. — see **Sodium Sulphantimonate**

## Schlossberger's Reagent. For textile fibers

Solut. freshly pptd. nickelous hydroxide in conc. ammonia. — Dissolves silk, but not wool.

*Schönbein's Ozone Paper*. — see **Potassium Iodide-Starch Paper**

*Schönbein-Pagenstecher's Paper*. — see **Guaiac-Copper Sulphate Paper**

*Schott's Paper*. — see **Lead Carbonate Paper**

## Schultze's Reagent. For alkaloids

Solut. 10 Gm. antimony chloride in 40 Gm. satur. solut. sol. phosphate. — Reagent affords ppt's w. sulphates of alkaloids.

do. — For cellulose

Solut. 250 Gm. zinc chloride, & 80 Gm. potass. iodide in 85 Cc. W., saturated w. iodine. — Affords a blue color w. cellulose.

*Schweinfurth's Green*. — see **Copper Acetoarsenite**

## Schweitzer's Reagent. For wool, etc.

Satur. solut. freshly pptd. cupric hydroxide in conc. ammonia. — Reagent dissolves silk, cotton, & linen, but not wool.

*Scilla*. — see **Squill**

*Scillain*. — see **Scillitoxin**

## Scillipicrin Merck

(100

Active bitter prin. fr. bulb of *Urginea maritima*, Baker. — Yellow to yellowish-red, friable, hygrosc. mass. — *Sol.* W. — Diuretic. — *Uses*: Dropsy, cardiac & nephritic affect., &c. — *Dose*, subcut.,  $\frac{1}{3}$ -1 grain (0.02-0.06 Gm.) once daily.

## Scillitin Merck. — Dry

(60

Bitter prin. fr. bulb of *Urginea maritima*, Baker. — Brownish-black mass. — Diuretic. — *Uses*: Dropsy due to dis. of heart & kidneys. — *Dose*  $\frac{1}{6}$ - $\frac{1}{2}$  grain (0.01-0.03 Gm.) per day, in pills.

do. Merck. — Soft

(35

## Scillitoxin Merck

(1500

(Scillain). — Glucoside fr. bulb of *Urginea maritima*, Baker. — Brownish, amorph. powd. — *Sol.* A. — Diuretic. — *Uses*: Nephritis & o. dis. urin. org. — *Dose*  $\frac{1}{60}$ - $\frac{1}{30}$  grain (0.001-0.002 Gm.) several t. p. d. — *Max. D.*  $\frac{3}{4}$  grain (0.05 Gm.), p. day.

*Sclerocrystallin*. — see **Ergotinine, Amorphous**

## Sclarea

(Clarry; Clary Sage). — Flowers & lvs. of *Salvia Sclarea*, L. *Labiatae*. — *Habit.* Southern Europe; cultiv. in U. S. — *Ethymol.* Fr. Lat. "salvare," to heal; "sclarea," fr. Italian "schiarare" (scharlei or horminum), to make clear, fr. Lat. "clarus," clear, light, referring to the light color of *Salvia Horminum*. — *Const.* Lvs. contain volat. oil, bitter subst'ce, & tannin. — *Uses*: Flowers: Domestic remedy in eye diseases. — Lvs.: As antispasmodic.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Scolopendrium**

(Hart's Tongue; Seaweed Fern; Snake Fern; Snake Leaves; Caterpillar Fern).—*Scolopendrium* (*Asplenium*) *Scolopendrium*, Karst. Polypodiaceae.—*Habit.*: Widely distrib. in Old World; rare in U. S.—*Etymol.*: Grk. "skolopendra," centipede, because of the similarity in appearance between the plant & the centipede.—*Astring.*; *Demulc.*—*Uses*: Pulmon. tuberculosis.—*Extern.*, as vulnerary.

**Scoparin Merck**

(350)

Bitter, phenolic prin. found, besides sparteine, in tops *Cytisus Scoparius*, Link.— $C_{20}H_{20}O_{10} + 5H_2O$ , or,  $CH_3O.C_6H_3(OH).C_{13}H_8(O_3(OH)_5 + 5H_2O$ .—Pale-yellow, cryst. powd.; odorl.; tastel.—*Sol.*, dil. A., alkalies.—*Diur.*—*Uses*: Cardiac or nephritic dropsy.—*Dose* 8-15 grains (0.5-1 Gm.).—*Inf.*  $\frac{1}{2}$ -1 grain (0.03-0.06 Gm.), dissolved in W. with a trace of ammonia, or in glycerin 1 part, W. 3 parts.

**Scoparius.—U. S. P.**

(Broom; Green, Scotch, or Irish Broom; Hogweed; Bannal).—Dried tops (also seeds & flowers, though not official) of *Cytisus Scoparius*, Link. (*Spartium* [*Sarothamnus*] *scoparius*, L.). Leguminosae. Papilionaceae.—*Habit.*: Western Asia; Southern & Western Europe; cultiv. in gardens in U. S.—*Etymol.*: "Cytisus" fr. Grk. "Kytisos," classic name, after island of Cythrus, one of the Cyclades, where first found growing. "Scoparius," fr. Lat. "scopa," broom. "Spartium," fr. Grk. "sarton," broom. "Sarothamnus," fr. Grk. "saros," broom, & "thamnus," shrub.—Thin, flexible, branched twigs; extern., dark-green; intern., yellowish, nearly smooth, tough, usually free fr. leaves; odor peculiar wh. bruised; taste disagree. bitter; short-fibrous fract.—*Constit.*: Sparteine,  $C_{13}H_{26}N_2$ ; scoparin,  $C_{20}H_{20}O_{10}.5H_2O$ ; volat. oil; tannin; fat; wax; sugar; coloring-matter.—*Uses*: All parts of plant *Diur.*; *Nar.*; Large doses *Emet.* & *Cathart.*; Cardiac Tonic.—Flowers also used techn. as a dye.—*Dose*: *Tops*: 15-60 grains (1-1 Gm.) in infus. or fld. extr.—*Antid.*, like digitalis, strychnine, atropine, electricity, tannin, potassium iodide, diuretics, diluents.

**Scoparius Juice Merck**

(3)

(Broom Juice).—Fr. fresh herb *Cytisus Scoparius*, Link; preserv. w. alc.—*Diur.*; *Cath.*—*Uses*: Cardiac dropsy.—*Dose* 1-2 fl. dr. (4-8 Cc.).—Large doses cause colic, hence remedy is best given with other diuretics.

**Scopola.—U. S. P.**

(Japanese Belladonna).—Dried rhizome of *Scopola Carniolicia*, Jacquin. Solanaceae.—*Habit.*: Japan; Germany (Bavaria); Austro-Hungary (Carniola, Croatia, &c.); Russia.—*Etymol.*: Named for Johann Ant. Scopoli, an Austrian naturalist (1723-1788).—"Carniolica," fr. "Carniola," an Austrian province, the habitat of the plant.—More or less curved, cylindr. or sl.

vertically flattened pieces 1-3 in. (25-75 Mm.) long &  $\frac{1}{3}$ - $\frac{2}{3}$  in. (8-16 Mm.) broad; extern., yellowish-brown to dark brownish-gray; wrinkled longitud.; short & sharp fract.; alm. inodor.; taste sweetish, then bitter & strongly acid.—*Constit.*: Scopolamine (hyoscyne); atropine; hyoscyamine.—*Mydriatic*; *Hypn.*; *Analg.*; *Antiphlogistic.*—*Uses*: As of belladonna.—*Extern.*, in rheumat.—*Doses*: 1-3 grains (0.06-0.2 Gm.).—*Fld. extr.*, 1-3  $\mathfrak{m}$  (0.06-0.2 Cc.).—*Antid.*, As of belladonna.

**Scopolamine Hydriodide Merck**

(1750)

$C_{17}H_{21}NO_4.HI$ .—Colorl. cryst.—*Uses, Doses, &c.*: As of the hydrobromide.

**Scopolamine Hydrobromide Merck.—True** (1750)

Salt of alkaloid fr. roots of var. plants of Solanaceae, chemically, physiologically, & clinically identical w. hyoscyne.— $C_{17}H_{21}NO_4.HBr + 3H_2O$ .—Colorl., hygrosc. cryst.—*Levorotatory.*—*Sol.* W., A.—*Mydr.*; *Sedat.*—*Uses*: *Extern.*, in ophthalm. instead of atropine; subcut. for the insane.—*Inf.*  $\frac{1}{240}$ - $\frac{1}{60}$  grain (0.00025-0.001 Gm.); 6-7 drops of a 0.1-0.2 % solution. instilled into eye.—*Max. D.*  $\frac{1}{60}$  grain (0.001 Gm.) single;  $\frac{1}{20}$  grain (0.003 Gm.) p. d.—Recently advocated for producing general anesthesia, in doses of  $\frac{1}{100}$ - $\frac{1}{60}$  grain (0.0006-0.001 Gm.) together w. morphine hydrochloride  $\frac{1}{6}$  grain (0.01 Gm.) by inj. every hour for 3 doses.—*Antid.*, emetics, stomach pump, muscarine, tannin, animal charcoal, cathartics, &c.

**Scopolamine Hydrochloride Merck**

(1750)

$C_{17}H_{21}NO_4.HCl + 2H_2O$ .—Wh. cryst.—*Sol.* W.—*Uses, Doses, &c.*: As of the hydrobromide.

**Scopolamine Methylbromide Merck**

(2000)

Wh. cryst.—*Sol.*, eas. W. & dil. A.; diffic. cold absol. A.; insol. E.—*Melt.* 216-217° C. w. decomp.

**Scopolamine Sulphate Merck**

(1750)

$(C_{17}H_{21}NO_4)_2.H_2SO_4$ .—Colorl., cryst. powd.—*Sol.* W.—*Uses, Doses, &c.*: As of the hydrobromide.

**Scopoline Merck**

(1500)

Decomp. prod. of scopolamine.— $C_8H_{13}NO_2$ .—Wh. cryst.—*Sol.* W., A.—*Melt.* 110° C.—*Boil.* 241-243° C.—Devoid of mydriatic properties.

**Scordium**

(Water Germander; English Treacle; Wood Garlic).—Herb of *Teucrium Scordium*, L. Labiatae.—*Habit.*: Europe.—*Etymol.*: Grk. "skordion," garlic, referring to the odor of the plant. "Teucrium" is the Grk. name of the plant.—Fresh herb has a garlicky odor, & a bitter, sharp taste.—*Constit.*: Scordein; volat. oil; tannin.—*Diaph.*; *Tonic*; *Anthelmint.*; *Antifermentative*; *Antisyphilitic*.

**Scorzonera**

(Viper's Grass; Winter Asparagus; Black Salsify).—Root of *Scorzonera hispanica*, L. Synan-

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



thereof, Compositae.—*Habit.*: Europe; Orient; extensively cult. —*Etymol.*: Italian "scorza," bark, & "nera," black. Or, fr. Spanish "escorzonera," fr. "escorzon," poison toad, as the plant is used in Spain as a certain remedy for bites of poisonous creatures.—*Constit.*: Starch; pectin.—*Febrif.*; *Dietet.*; *Aper.*

### Scrophularia

(Figwort; Water Figwort; Pilewort; Scrofula Plant; Throatwort).—Herb & root of *Scrophularia nodosa*, L. Scrophulariaceae.—*Habit.*: Europe.—*Etymol.*: Lat. "scrophula," scrofula, dim. of "serofa," the hog, referring to the similarity in appearance of the tuberous roots to the swollen cervical glands of the hog.—*Constit.*: Bitter principle.—*Uses*: Domestic remedy in swellings, scrofula, & cutaneous dis.—*Dose*: Fld. extr., 30–60 ℥ (2–4 Cc.).

*Skullcap.*—see **Scutellaria**

*Scurvy Grass, or Scurvy Weed.*—see **Cochlearia**

### Scutellaria.—U. S. P.

(Skullcap; Helmet Flower).—Dried plant of *Scutellaria lateriflora*, L. Labiate.—*Habit.*: British America, south to Florida & New Mexico.—*Etymol.*: Lat. "scutella," a small dish, referring to the shape of the appendage to the fruiting calyx. The appendage is also believed to resemble a cap in shape, hence its popular name, skullcap.—*Constit.*: Scutellarin,  $C_{10}H_{12}O_4$ ; volat. oil; tannin.—*Sed.*; Antispasmodic; Tonic.—*Uses*: Neural, delir. trem., nerv. exhaust., & chorea.—*Doses*: Extr., 5–10 grains (0.3–0.6 Gm.).—Fld. extr., 30–60 ℥ (2–4 Cc.).

### Scutellarin (20)

Non-toxic principle fr. root *Scutellaria lateriflora*, L.— $C_{10}H_{12}O_4$ —Flat, yellow need.—*Sol.* A., E., & alkalies.—*Melt.* 199° C.—Tonic, Nerve Sed.—*Uses*: Chorea & insomnia.—*Dose*  $\frac{3}{4}$ –4 grains (0.05–0.25 Gm.).

*Sea Wrack.*—see **Fucus**

*Secale Cornutum.*—see **Ergot**

### Secorin

(Ergotin Keller).—An ergot extr. cont. the alkaloid in undecomp. form, & exceed. active.—15 grains (1 Gm.) = 60 grains (4 Gm.) ergot, or  $\frac{1}{8}$  grain (0.008 Gm.) amorph. cornutine.

*Sedatin.*—see **Valerydin**

*Sedatine.*—see **Antipyrine**

*Seignette Salt.*—see **Potassium & Sodium Tartrate**

### Seiler's Indigocarmine-Boraxcarmine

Consists of 3 soluts.: (a) 1 Gm. carmine, 3 Gm. borax, 150 Cc. W., & 330 Cc. A.; (b) 10 Cc. hydrochloric acid & 40 Cc. A.; (c) 4 drops satur. aqu. solut. indigo-carmine in 60 Cc. W.—*Uses*: Staining histological specimens. The sections are first stained with (a), then washed w. (b), & then placed in (c).

*Selenic Hydroxide.*—see **Acid Selenic**

*Selenious (Selenous) Hydroxide.*—see **Acid Selenous**

### Selenium Merck.—Sticks (40)

*Etymol.*: Fr. Grk. "selene," moon, because in the ores it accompanies tellurium, just as the moon does the earth. Discovered by Berzelius in 1817.—Non-metal. element.—Se—Grayish-black sticks w. greenish reflect.—*Sol.* v. sl. in  $CS_2$  & in  $H_2SO_4$ —*Uses*: Photometry, in glass making, & electrical experiments.

### do. Merck.—Precipitated (80)

Red, amorph. powd.—*Sol.*  $CS_2$  &  $H_2SO_4$ .—*Uses*: Prurigo, pruritus, & eczema, in 1:15 oint.—*Techn.*, as imbedding material for diatoms in microscopy.

### do. Merck.—Cryst. (900)

Dark-red cryst.—*Sol.*,  $CS_2$ ;  $H_2SO_4$ .—*Melt.* 217° C.

### Selenium

(Marsh Parsley; Marsh Smallage).—Selenium (Peucedanum) palustre, L. Umbelliferae.—*Habit.*: Europe.—*Etymol.*: Grk. "selene," moon, referring to the shape of the seeds. Lat. "paluster," swampy, referring to its frequenting swampy ground.—*Constit.*: Volat. oil; soft resin; gum; sugar.—*Emmen.*; *Diur.*; Antispasmodic.—*Uses*: Domestic remedy in epilepsy & whoop-cough.

### Selmi's Reagent.—For alkaloids

Satur. solut. iodic acid in sulphuric acid.—Affords various color reactions w. alkaloids.

### Semecarpus

(Oriental Cashew-nut; Malacca-nut; Marany-nut; Marking-nut; Marsh-nut; Acajou-nut; Mangle).—Fruit of *Semecarpus anacardium*, L. Anacardiaceae. See also *Anacardium*.—*Habit.*: East Indies.—*Etymol.*: Grk. "semeion," a mark, and "carpos," fruit, i.e., the fruit yields an indelible stain.—Ovate, heart-shaped, flattish, 1 in. (25 Mm.) long, blackish-brown fruit; pericarp contains a brown acid juice; seed is white, mild, & oily.—*Constit.*: Cardol; anacardic acid; tannin; resin; gum. Seeds contain bland fixed oil.—*Uses*: *Medic.*: Intern., in neurasth., sciatica, paralyt., &c.—*Extern.*, rubefac., epispas., & caust. (fr. presence of cardol in pericarp).—*Techn.*, manuf. indel. ink, coloring fats & oils black, & making the so-called "Silhet's varnish or lacquer" for iron & stone vessels.—*Dose*: Decoct. (1:16), 4 fl. dr. (15 Cc.) in neurasth., sciatica, paralysis, &c.

### Semicarbazide Hydrochloride Merck (450)

(Amidourea Hydrochloride).— $NH_2.CO.NH.NH_2.HCl$ .—Wh., cryst. powd.—*Sol.* W.

*Seneca Oil.*—see **Petroleum**

### Senecion (17)

Eclectic resinoid fr. *Senecio vulgaris*, L.—Brown powd.—*Sol.* A.—*Emmen.*; Emetic; Astring.—

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Uses:* Amenor., dysmenor., hepatitis, & hemoptysis.—*Dose* 1-3 grains (0.06-0.2 Gm.).

### Senecio Aureus

(Golden Ragwort; Squaw Weed; Life Root).—Root & herb of *Senecio aureus*, L. Compositae.—*Habit.*: Canada & eastern U. S.—*Etymol.*: Fr. Lat. "senex," an old man, referring to the hoary appearance of some species, or to the white pappus. Lat. "aureus," golden, refers to the golden-yellow color of the flowers.—*Diur.*; *Emmen.*; *Diaph.*; *Tonic.*—*Uses:* Dysmenorrh., amenorrh., dropsy, & diseases of genito-urin. tract.—*Doses:* Extr., 2-10 grains (0.12-0.6 Gm.).—*Fld. extr.*, 10-60 ℥ (0.6-4 Cc.).

### Senecio Jacobææ

(Tansy Ragwort; Staggerwort; St. James'-wort).—Herb of *Senecio Jacobææ*, L. Compositae. Synanthérées.—*Habit.*: Europe; Asia; advent. in U. S.—*Etymol.*: Lat. "senex," old, referring to the usually bald appearance of the receptacle after blossoming. Named for St. James (Lat. "St. Jacobus") because it blossoms toward the end of July (Jacob).—*Constit.*: Senecin.—Antispasmodic; Emmen.—*Uses:* Catamenial disorders; functional amenor.—*Dose:* *Fld. extr.*, 20 ℥ (1.3 Cc.).

### Senecio Vulgaris

(Groundsel; Birdseed; Chicken-weed; Senecion).—Herb of *Senecio vulgaris*, L. Compositae.—*Habit.*: Europe; natur. in U. S.—*Etymol.*: "Senecio," see preceding. Lat. "vulgaris," common.—*Constit.*: Senecionine; senecin.—Emmen.—*Uses:* Dysmenor. & amenor.—*Doses:* *Fld. extr.*, 30-60 ℥ (2-4 Cc.) in dysmenor.; 10-20 ℥ (0.6-1.3 Cc.) in amenor.

### Senega.—U. S. P.

(Senega Snakeroot; Seneca Root; Rattlesnake Root).—Dried root of *Polygala Senega*, L. Polygalaceae.—*Habit.*: North America (Canada to S. Carolina, & west to Wisconsin).—*Etymol.*: "Senega," fr. the Seneca tribe of American Indians who used the plant as a remedy in snake bites—hence also its name, rattlesnake-root. "Polygala," fr. Grk. "polys," much, & "gala," milk, i.e., it is supposed to increase the secretion of milk.—Somewh. cylindr., tapering branches & a few rootlets; 3-6 in. (7-15 Cm.) long & 1/6-1/3 in. (4-8 Cm.) thick; extern., yellowish-gray or brownish-yellow, longit. wrinkled; short fract.; wood, light yellow; sl. nauseous odor; sweetish, then acid taste.—*Constit.*: Senegin (polygalin),  $C_{32}H_{52}O_{17}$ ; saponin; polygalic acid; fixed & volat. oils; resin; polygalite; sugar.—Expector.; *Diur.*; *Diaph.*; *Alter.*; *Sed.*—*Uses:* Intern., in coughs, colds, croup, rheumat., dropsy, asthma, &c.—*Extern.*, irritant.—*Doses:* 5-30 grains (0.3-2 Gm.).—*Alcoh. extr.*, 1-3 grains (0.06-0.2 Gm.).—*Aqu. extr.*, 1-3 grains (0.06-0.2 Gm.).—*Fld. extr.*, 5-15 ℥ (0.3-1 Cc.).

### Senegin Merck

(425)

(Senega Saponin; Polygalic Acid).—Saponin-like glucoside fr. root *Polygala Senega*, L.—

$C_{32}H_{52}O_{17}$  (Hesse).—Yellowish-wh. to brown powd.; darkens on heating to 195° C.—*Sol.* W.—Expector.; *Diur.*; *Emetic.*—*Uses:* Catarrh, croup, dropsy.—*Dose* 1/2-2 grains (0.03-0.12 Gm.).

### Senna.—U. S. P.

Dried leaflets of *Cassia acutifolia*, Delile (Alexandria senna), or of *C. angustifolia*, Vahl (India or Tinnevely senna). Leguminosae. Cassalpiniae.—*Habit.*: Nubia; Barbary; Abyssinia; Egypt (Alexandria); Southern India (Tinnevely).—*Etymol.*: Fr. "sacna," the Arabian name of the drug.—*Constit.*: Cathartic acid; chrysophanic acid; sennacrol; sennapierin; cathartomannite; emodin; anthraglucosennin; glucosennin; sennarhamnetin; sennanigrin.—*Lax.*; *Purg.*—*Uses:* Constip., & febrile condit.—*Doses:* 30-180 grains (2-12 Gm.).—*Alcoh. extr.*, 10-40 grains (0.6-2.6 Gm.).—*Fld. extr.*, 1-4 fl. dr. (4-15 Cc.).—*Aqu. extr.*, 30-75 grains (2-5 Gm.).

### Senna Pods

Pods of various spec. of senna (see latter).—*Habit.* & *Etymol.*: See Senna.—Pods are flat, elliptical, obtuse, membranous, smooth, grayish-brown; abt. 1 in. (25 Mm.) long & 1/2 in. (12 Mm.) broad, but scarcely curved.—*Constit.*: Cathartic acid.—Purgative (milder than the leaves).

### Sepia

(Cuttle-fish Bone).—Calcareous subste. under the skin of the back of *Sepia officinalis*, L. Cephalopoda.—*Habit.*: Mediterranean Sea; Atlantic & Pacific Oceans.—*Etymol.*: Grk. "sepia," the cuttle fish.—*Constit.*: Calcium carbonate & phosphate; gluten.—*Uses:* Polishing agent, & in tooth powders.

*Serenoa*.—see *Sabal*

*Serge Blue*.—see *Ethylene Blue*

### Serpentaria.—U. S. P.

(Virginia Snakeroot; Snakeroot; Snakeweed; Sangrel; Birthwort).—Dried rhizome & roots of *Aristolochia Serpentaria*, L. (Virginia Serpentaria), & of *A. reticulata*, Nuttall (Texas Serpentaria). Aristolochiaceae.—*Habit.*: U. S.—*Etymol.*: Lat. "serpens," snake, i.e., the root is used in Virginia in snake bites. "Aristolochia," fr. Grk. "aristos," best, & "locheia," childbirth, i.e., it was once thought to favor parturition. "Reticulata," fr. Lat. "reticulatus," netted, referring to the reticulate leaves.—*Constit.*: Aristolochine,  $C_{22}H_{32}NO_{13}$ (?); volat. oil; resin; tannin.—*Diuret.*; *Diaph.*; *Tonic.*; *Emmen.*; *Aphrodis.*; *Antiper.*; *Stim.*; *Expector.*—*Uses:* Intermittent fever, w. or without quinine; in cutaneous affect., diphtheria, amenor., & bronch.—*Doses:* 5-30 grains (0.3-2 Gm.).—*Alcoh. extr.*, 1-5 grains (0.06-0.3 Gm.).—*Fld. extr.*, 10-30 ℥ (0.6-2 Cc.).—*Tinct.*, 30-120 ℥ (2-8 Cc.).

### Serpyllum

(Wild Thyme; Creeping Thyme; Horse Thyme).—Herb of *Thymus Serpyllum*, L. Labiatae.—

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Habit.* Europe, northern Asia; adv. in U. S.—*Etymol.*: Grk. "herpein," to creep, because of the creeping character of the root, & "thyris," strength, because of the invigorating odor.  
*Constit.*: Volat. oil; resin; bitter principle; tannin.—*Rubraf.*—*Uses*: Baths; also for making pillows.

### Serum Antidiphtheric.—U. S. P.

(Diphtheria Antitoxin).—Fld. separated fr. coagul. blood of a horse immunized through inoculation w. diphtheric toxin.—Yellowish or yellowish-brown, transp. or sl. turbid, liq.; odorl., or w. sl. odor due to antiseptic used as preservative.—*Sp. Gr.* 1.025–1.040 at 25° C.—*Dose*: For well persons, 500 units as immunizer; average dose, 3,000 units.—*Caut.* Should be kept in sealed glass containers, in a dark place, at 4.5–15° C.

*Note.*—Antidiphtheric serum gradually loses its power, the loss varying from 10–30 per cent. in 1 year.

### Serum Antistreptococcic Menzner-Merck

Fr. blood of horses rendered immune by treatment w. highly virulent streptococcic cultures.—*Uses*: By inj. in erysip., puerperal fev., septicæmia, phlegmons, anginas, broncho-pneum., & mixed infections.—*Dose*: First, 5 fl. dr. (20 Cc.); after 24 hours, 150 ml (10 Cc.), continuing until reduced temperature remains permanent.

### Serum Antivenomous Calmette-Merck

Blood serum of asses or horses immunized against snake venom.—Immunizing power 1:10,000, *i.e.*, a quantity equal to  $\frac{1}{10000}$  the weight of a live rabbit will suffice to neutralize the action of  $\frac{1}{100}$  grain (0.001 Gm.)—the absolute, lethal dose—of the dried venom of the Cobra di Capello, when subsequently ingested. The serum may also successfully be used on the human being & on animals in bites from *Bungarus coruleus*, *Bothrops lanceolatus*, black Naja, *Crotalus horridus*, horned viper, Cape mountain adder, *Echis carinata*, *Lachesis*, *Pelias berus*, also stings of *Trachinus draco* & scorpions. In the treatment, a ligature is first placed above the bitten part, then the hands are washed with a 1:60 chlorinated-lime solution, & the serum then injected (150 ml [10 Cc.] for children; 300 ml [20 Cc.] for adults). Around about the bitten part 120–150 ml (8–10 Cc.) of the chlorinated-lime solution are injected into each of 3–4 places, into the connective tissue in order to decompose the still unabsorbed poison in loco. Profuse perspiration is induced by giving hot tea & coffee. Alcohol is to be avoided. If the danger is exceedingly grave, the serum must be injected intravenously.

*Serum-casein.* }  
*Serum-globulin.* } —see **Globulin, Para-**

*Seseli.*—see **Siler**

*Seven Barks.*—see **Hydrangea**

### Shellac

(Lacca).—Resin-exudate caused by the puncture by *Coccus Lacca*, Hemiptera, of the bark of various temperous spec. of *Shedderia*, Butea, Ficus, &c.—*Habit.*: East India.—*Etymol.*: Fr. "laca," the Lat. name for the substance.—*Constit.*: Laccic acid,  $C_{14}H_{10}O_4$ ; erythrolaccin,  $C_{18}H_{14}O_4 \cdot H_2O$ ; wax; resin; bitter substance.—*Uses*: Techn., in lacquers, varnishes, polishes, & cements.

*Shepherd's Purse.*—see **Capsella**

### Sideritis

(German Ironwort).—Herb of *Sideritis hirsuta*, L. Labiate.—*Habit.*: Middle & southern Europe.—*Etymol.*: Grk. "sideros," iron, referring to its use as a remedy for wounds caused by iron.—*Constit.*: Volat. oil; tannin; bitter principle.—*Uses*: Domestic Antipyr. & Emmen.; also in aromat. baths.

### Sideroxylon

(Downward Plum; Saffron Plum; Ants' Wool).—Bark of *Sideroxylon (Aehras) obovatum*, Gaert. Sapotaceæ.—*Habit.*: Queensland (Australia).—*Etymol.*: Fr. Grk. "sideros," iron, & "xylon," wood, *i.e.*, the wood is very hard.—*Uses*: Tonic & Astring.

**Sidonal** (75)

(Piperazine Quinate).—Wh. powd.—*Sol.* W.—Uric-acid solvent.—*Uses*: Gout.—*Dose* 15–20 grains (1–1.3 Gm.) 5 or 6 t. d.

**Sidonal "New"** (40)

(Quinic-acid Anhydride).—Wh., cryst. powd.—*Sol.* W.—Uric-acid solvent.—*Uses*: Gout, &c.—*Dose* 30–45 grains (2–3 Gm.).

### Siegesbeckia

(Herbe de Flacq; Guérit vite).—Herb of *Siegesbeckia orientalis*, L. Compositæ. Synantheræ.—*Habit.*: Tropical Asia; South America; Mauritius.—*Etymol.*: Named for J. G. Siegesbeck (lived in Petersburg, 1736).—*Constit.*: Darutyn.—Antiscrof.; Antisyphil.; Antipodagr.—*Uses*: Various cutan. diseases.—Alcoholic tinct. is used.

*Sierra Salvia.*—see **Artemisia Frigida**

*Silberol*=*Silver Phenolsulphonate*.—see **Silver Phenolsulphonate**

### Siler

(Seseli; Horse Caraway).—Seeds of *Siler trilobum*, Scop. Umbelliferae.—*Habit.*: Southern Europe.—*Etymol.*: "Siler" was originally the Lat. name of a species of willow; derived fr. "sion," fr. the Grk. "sion," a water-parasit, fr. the Celtic "siv," water. The term "seseli" was used already in Dioscorides' time, & is probably derived fr. some oriental language.—*Constit.*: Volat. oil.—*Uses*: Chiefly in veterinary practice as a carminative.

*Silica.*—see (Acid) **Silicic Anhydride**

*Siliceous Earth.*—see **Kieselguhr**

*Silicium.*—see **Silicon**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Silicon Merck.—Amorph.** (100  
(Silicium).—*Etymol.*: Fr. Lat. "silex," siliceous sand, pebbles. Discovered in 1823 by Berzelius, who, however, desired to call the element simply "Kiesel," fr. the German "Kieselstein," the equivalent of "silex."—Non-metal. element.—Si.—Gray, amorph. powd.; takes fire if heated in air.—*Sol.*, alkalies.

**do. Merck.—Cryst.** (200

Hard, black, or grayish-black, lustr. leaflets, resembling graphite; unchangeable on igniting in air.—*Sol.*, alkalies.—*Uses*: Pure silicon has heretofore not found extensive use technically; its alloys have, however, been used (*e.g.*, silicon bronze in telephone & telegraph wires); furthermore silicon carbide (corundum) is technically valuable as an abrasive & polishing agent.

**Silicon Bromide Merck** (125  
(Silicon Tetrabromide).— $\text{SiBr}_4$ .—Colorl., fumi. liq.; disagre. odor.—Sp. Gr. 2.813 at 0° C.—Decomp. into hydrobromic & silicic acids by W.—*Boil.* 154° C.

**Silicon Chloride Merck** (20  
(Silicon Tetrachloride).— $\text{SiCl}_4$ .—Clear, colorl., very mobile, fumi. liq.; suffocating odor.—Sp. Gr. 1.524 at 0° C.—*Boil.* 58° C.—*Incomp.* W.—*Uses*: Electrotechn.

**Silicon-copper Merck** (35  
(Copper-Silicide).—Alloy of silicon & copper formed electrolytically.—Hard, tough bronze.

**Silicon-magnesium Merck** (275  
(Magnesium Silicide).— $\text{Mg}_2\text{Si}$ .—Leaflets; metallic luster.

*Silicon Tetrabromide.*—see **Silicon Bromide**

*Silicon Tetrachloride.*—see **Silicon Chloride**

*Silkweed.*—see **Asclepias Syriaca**

**Silver Merck.—By Electrolysis** (100  
*Etymol.*: "Silver," fr. Old English "selver," or Anglo-Saxon "seolfor." The Lat. "argentum," fr. same root as Grk. "argyros," & referring to the color "argos," white, of the metal.—Metal.—Ag.—Fine, silver-gray powd.

**do. Merck.—Precip.** (30

**do. Merck.—Sheets** (70

*Uses*: Jewelry, silver leaf, wire, castings, alloys, soldering silver objects, & making chemical, pharmaceutical, & photographic salts, &c.

**Silver Merck.—Reagent** (100  
Ag.—Wh., lustr. met.—*Sol.*  $\text{HNO}_3$ ; hot conc.  $\text{H}_2\text{SO}_4$ ; insol.  $\text{HCl}$ , dil. cold  $\text{H}_2\text{SO}_4$ .—*Tests*: (*Foreign Met.*) diss. 2 Gm. in v. sm. quant.  $\text{HNO}_3$  (sp. gr. 1.2)—solut. colorl., & no res. (Sb; Sn); dil. w.  $\text{H}_2\text{O}$ —no turb. (Bi); add  $\text{HCl}$  & boil to ppt. all the Ag; let ppt. settle in dark place; filter; evap. filtrate—no wghble. res.—*Uses*: Standardizing volumetric soluts. of  $\text{NaCl}$ ; reducing

oxides of nitrogen in ultimate organic analysis.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Silver Acetate Merck.—Pure** (60

$\text{AgC}_2\text{H}_3\text{O}_2$ .—Wh. cryst.—*Sol.*, boiling W.—*Uses*: 1% solut. to prevent purulent ophthalmia in new-born infants.—*Caut.* All silver salts should be kept fr. light & fr. organic matter.

**Silver Arsenite Merck** (65

$\text{Ag}_3\text{AsO}_3$ .—Yellow powd.—Insol. W., A.—Alter.; Antisept.—*Uses*: Skin dis.—*Dose*  $\frac{1}{100}$ – $\frac{1}{60}$  grain (0.0006–0.001 Gm.).—*Caut.* Poison!

**Silver Benzoate Merck** (40

$\text{AgC}_7\text{H}_5\text{O}_2$ .—Wh. powd.—*Sol.*, hot W.; v. sl. A.

*Silver Bichromate.*—see **Silver Dichromate**

**Silver Borate Merck** (55

$3\text{Ag}_2\text{O} \cdot 4\text{B}_2\text{O}_3$  (when freshly made).—Wh. powd.; decomposes on long keeping.—*Sol.*, ammonia, & in solut. potass. cyanide.

**Silver Bromate** (65

$\text{AgBrO}_3$ .—Heavy, wh. powd.—*Sol.*, sl. in W.—Decomp. w. heat.—*Caut.* Keep in amber bots.

**Silver Bromide Merck** (23

$\text{AgBr}$ .—Yellowish powd.—*Sol.*, conc. ammonia, & in solut. of potass. cyanide & bromide, & in solut. sod. thiosulphate.—*Uses*: Photo.—*Caut.* Keep fr. light.

**Silver Carbonate Merck** (50

$\text{Ag}_2\text{CO}_3$ .—Yellowish, heavy powd.; decomp. by heat into carbon dioxide & silver oxide.—*Sol.*, in  $\text{HNO}_3$  & solut. potass. cyanide; insol. W., A.

**Silver Chloride Merck** (17

$\text{AgCl}$ .—Wh. powd.; blackens on expos. to light.—*Sol.*, amm., potass. thiosulphate, & potass. cyanide.—Antisept.; Nerve Sed.—*Uses*: Chorea, gastralgia, epilepsy, pertussis, diar., & var. neuroses.—*Techn.*, manuf. pure silver, silver-plating by wet & cold process, in analysis, photometry, photography, coloring mother-of-pearl buttons, polishing powd. for German silver, &c.—*Dose*  $\frac{1}{5}$ – $\frac{3}{4}$ – $\frac{1}{2}$  grains (0.02–0.05–0.1 Gm.) in pills 3–4 t. p. d.—*Caut.* Keep in dark bot.

**Silver Chromate Merck** (70

$\text{Ag}_2\text{CrO}_4$ .—Dark-red cryst.—*Sol.*, ammonia.

**Silver Cinnamate Merck** (70

(Silver Cinnamylate).— $\text{AgC}_9\text{H}_7\text{O}_2$ .—Heavy, wh. powd.—*Sol.*, sl. W. & A.—*Caut.* Keep dark.

**Silver Citrate Merck** (24

$\text{Ag}_3\text{C}_6\text{H}_5\text{O}_7$ .—Wh. powd. or need.; darkens in light.—*Sol.* 4,000 W.—*Uses*: Surg. antisept. in powd. form. as disinfect., in 0.2–0.25% solut.; in acute gonorr., 0.25 : 2000, as inject. 4 t. p. d.; as gargle, lotion, & wash, in 0.1–0.5 : 1000 aq. solut.—*Caut.* Prepare solutions fresh!

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyanine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Silver, Colloidal.*—see **Collargol**

**Silver Cyanide Merck.**—Pure (25)

$\text{AgCN}$ .—Wh. powd., odorl., tastel., turns dark on expos. to light.—*Sol.*, potassium cyanide, ammonia, boiling dil. nitric acid, sodium thio-sulphate, mol. W., A.—*Antipyr.*; *Sed.*—*Uses.* In making hydrocyanic acid; sometimes employed in epilepsy & chorea.—*Dose*  $\frac{1}{c}$ — $\frac{1}{20}$  grain (0.001–0.003 Gm.) in pills.—*Intid.*, ammonia, chlorine, mixt. of ferric & ferrous sulphates, artif. respir., stomach siphon.—*Caut.* Great care! Poison!

**Silver Dichromate Merck** (60)

$\text{Ag}_2\text{Cr}_2\text{O}_7$ .—Violet-red, cryst. powd.—*Sol.*, sl. W.

**Silver Eosolate** (150)

Silver salt of trisulphoacetylguaiacol.— $\text{C}_9\text{H}_7\text{O}_3(\text{SO}_3\text{Ag})_3$ .—50% Ag.—*Antisept.*—*Uses.* Gonorr.—*Appl.*, 2% oint., or bougies.—*Inj.*, 1:200 solut.

**Silver Fluoride Merck** (150)

$\text{AgF}$ .—Yellow, v. deliq. cryst. conglomerations; darkens in light.—*Sol.*, W.—Strong Antisept.

*Silver-Ichthyol.*—see **Ichthargan**

**Silver Iodate Merck** (50)

$\text{AgIO}_3$ .—Wh. powd.—*Sol.*, sl. boil. W.—Astring.—*Uses.* Acute & chronic diar.—*Dose*  $\frac{1}{12}$ – $\frac{1}{6}$  grain (0.005–0.01 Gm.).

**Silver Iodide Merck.**—Pure (20)

$\text{AgI}$ .—Light yellow powd.; odorl.; tastel.; affect. by light.—*Sol.*, solut. potass. iodide or cyanide, amm. thiosulphate.—*Alterative.*—*Uses.* Gastralgia & syph.—*Dose*  $\frac{1}{4}$ –1 grain (0.015–0.06 Gm.) in pills.—*Caut.* Keep fr. light.

**Silver Lactate Merck** (25)

$\text{AgC}_5\text{H}_7\text{O}_3 + \text{H}_2\text{O}$ .—Wh. cryst., or powd.; affected by light.—*Sol.*, abt. 20 cold W.; more sol. in hot W.—*Antisept.*; Astring.—*Uses.* Sore throat, gonorr., intraparenchymatous in acute & chron. infect. diseases.—*Dose*  $\frac{1}{c}$  grain (0.01 Gm.).—*Appl.*, as surg. antisept. solut. 1–2:4000; as wash & gargle 1 teaspoonful of 1:50 solut. to 1 glass water.

**Silver Nitrate Merck.**—Cryst. (11)

$\text{AgNO}_3$ .—Colorl., rhombic plates; odorl.; bitter, caustic, metal. taste; rapidly reduced by org. matter in light.—*Sol.*, abt. 1 W., 26 A., at 15° C.; 0.1 boil. W. & 5 boil. A.; (0.54 W., 24 A. at 25° C., U. S. P.).—*Melt.*, abt. 200° C.—*Antisept.*; *Alter.*; *Stim.*; *Eschar.*; *Irrit.*—*Uses.* *Intern.*, epilepsy, locomotor ataxia, tabes dorsalis, typhoid fever, chronic diar., subacute gastritis, catarrh of gall duct, gastric ulcer, &c.—*Extern.*, in 2% solut. as inj. in gonorr. Caustic for warts, wounds, ulcers; in odontalgia following exposure of neck of tooth, in subst'ce or solut.; in ophthalmic practice in 0.2–0.5–1–5% solut.; as enema in 0.1–0.5–1% solut.; as paint for intern. & extern. hemorrhoids, in 2% solut.—

*Techn.*, extensively in photo. & as reagent by chemists; in sympathetic & indelible inks, dyeing hair, mother-of-pearl, &c.; silver plating metals, alloys & glass; manuf. yellow & red glass; etching ivory; manuf. silver salts.—*Dose*  $\frac{1}{8}$ – $\frac{1}{2}$  grain (0.008–0.03 Gm.). When given long internally, skin bec. blue-black.—*Intid.*, table salt (not in too large a quantity, however, as it irritates the stomach), ammon. chloride, mucilaginous drinks, emetics, stomach siphon, white of egg, milk, &c.—*Incomp.*, acetates, alcohol, alkalis, antimony salts, arsenites, bromides, carbonates, chlorides, chromates; creosote, cyanides, copper salts, extracts, ferrous sulphate, hypophosphites, iodides, morphine salts, oils, manganous salts, organic substances, phosphates, sulphides, sulphates, tannic acid, tartrates, veget. astring. infusions & decoctions.—*Caut.* Keep in the dark, with care. Poison!

**Silver Nitrate Merck.**—Diluted.—67% (9)

(Mitigated Lunar Caustic, No. 2).—By melting together silver nitrate & potass. nitrate.—White sticks.—*Sol.*, W.—*Antisept.*; *Escharotic.*—*Uses.* *Extern.*, where pure lunar caustic is too strong.

**do. Merck.**—50% (8)

(Mitigated Lunar Caustic, No. 3).

**do. Merck.**—U. S. P.—33 $\frac{1}{3}$ % (7)

(Mitigated Lunar Caustic, No. 4).— $\text{AgNO}_3$ , fused w. twice its wt.  $\text{KNO}_3$ .

**Silver Nitrate Merck.**—Fused.—Pure (12)

(Molded Silver Nitrate; Lunar Caustic).—Cryst. silver nitrate fused w. 4% hydrochl. acid.—Wh., hard solid; fibrous fracture; odorl.; bitter, metal., caustic taste. Darkens on expos.—*Sol.*,  $\text{HNO}_3$  (sol. w. except. of abt. 5%  $\text{AgCl}$  in 0.54 W., 24 A. at 25° C.; 0.1 boil. W.; 5 boil. A., U. S. P.).—*Melt.* 218° C.—*Uses.* *Extern.*, gonorr., conjunctivitis, cystitis, chronic diar., stricture of urethra, excrescences, warts, fungous growths, chancre, diphth., epididymitis, felon, hydrocele, smallpox pitting, laryngitis, tabes dorsalis, &c.; applied directly or in solut.—*Dose*  $\frac{1}{12}$ – $\frac{1}{2}$  grain (0.005–0.03 Gm.); eye wash: 1–5% in W.; enemas: 1–5% in W.

**do. Merck.**—Cones (14)

Cont. abt. 5%  $\text{AgCl}$ .

**Silver Nitrate Merck.**—Reagent (30)

$\text{AgNO}_3$ .—Colorl., lustr. cryst. or sticks; stellate, cryst. fract.—*Sol.* 0.6 W.; abt. 10 A (80%).—*Aqu.* solut. neutral to litmus paper.—*Tests.* (Cl) 5 Gm. + 5 Cc.  $\text{H}_2\text{O}$ ; add to 100 Cc.  $\text{H}_2\text{O}$ —no turb. or opalesce.—( $\text{KNO}_3$ ) 0.5 Gm. + 0.5 Cc.  $\text{H}_2\text{O}$  + 20 Cc. absol. A.; shake few min.—no turb. or ppt.—(*Cu*; *Bi*; *Pb*) 1 Gm. + 5 Cc.  $\text{H}_2\text{O}$  + 10 Cc.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96)—solut. clear & colorl.—(*Impur. not pptd. by HCl*) 2 Gm. + 50 Cc.  $\text{H}_2\text{O}$ ; boil; add 3 Cc.  $\text{HCl}$  (sp. gr. 1.124); when ppt. settled, filter; evap. filtrate—no whible res.—*Uses.* Detect., separ., & determ. halogens & cyanides;

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



detect. aldehydes, & chromic, arsenous, formic, & uric acids, & cotton-seed oil.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### Silver Nitrate Paper

Wh. paper impregnated w. solut. silver nitrate. —*Uses:* For detection of chromic acid, arsenous acid, & phosphorus. Most sensitive reagent for arsenic, especially adapted for toxicological investigations. Also adapted for detecting uric acid in urine (brown color). — Phosphorus = black color; chromates = red color; arsenic = yellow color.

### Silver Nitrite Merck.—Pure (30

$\text{AgNO}_2$ . — A microcryst., alm. colorl. powd. — *Sol.* 300 W.; in boil. W. with partial decomp.

### Silver Nitrite Merck.—Reagent (80

$\text{AgNO}_2$ . — Sm., yellowish, acic. cryst. — *Sol.*, abt. 300 cold W.; more read. in hot W., but w. part. decomp. — *Tests:* (*Impur. not pptd. by HCl.*) — 2 Gm. + 100 Cc.  $\text{H}_2\text{O}$  + 2 Cc.  $\text{HNO}_3$  (sp. gr. 1.153); boil; add 3 Cc.  $\text{HCl}$  (sp. gr. 1.124); when ppt. settled, filter; evap. filtrate — no wghble res. — *Uses:* Standardizing permanganate soluts.; estim. nitrites.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### Silver Oxalate

$\text{Ag}_2\text{C}_2\text{O}_4$ . — Wh., cryst. powd.; detonates w. heat. — *Sol.*, nitric acid.

### Silver Oxide Merck (22

$\text{Ag}_2\text{O}$ . — Heavy, brownish-black powd.; odorl.; disagr., metal. taste. — *Sol.*, v. sl. W.; insol. A.; eas. sol. in  $\text{HNO}_3$ . — *Alter.*; *Antisep.*; *Irritant.* — *Uses:* Syph., epilepsy, nausea, chorea, pyrosis, cardialgia, dysent., night sw., leucor., uter. inflam., venereal sores, gonorr., &c. — *Techn.*, for imparting luster to glass. — *Dose*  $\frac{1}{12}$ – $\frac{1}{6}$ – $\frac{3}{4}$  grain (0.005–0.01–0.05 Gm.), best, mixed w. some chalk, & put up in capsules. — *Incomp.*, ammonia water, creosote, tannin, organic matter, phosphorus; salts of bismuth, iron, copper & mercury; acids. — *Caut.* May cause explosion if triturated w. oxidizable matter.

### Silver Permanganate Merck (50

$\text{AgMnO}_4$ . — Dark-violet cryst. — *Sol.*, sl. W. — *Caut.* Dark-colored bot.

### Silver Phenolsulphonate Merck (60

Silver Sulphophenylate; Silver Sulphocarbolate). —  $\text{C}_6\text{H}_4\text{OHSO}_3\text{Ag}$ . — Wh., cryst. powd. — *Sol.* W., A. — Affected by light. — *Surg. Antisep.* & *Astring.* — *Uses:* In ophthalmic practice in 2:1000 aq. solut.; also instead of silver nitrate (only half the strength of latter).

### Silver Phosphate Merck (60

(Normal Silver Orthophosphate). —  $\text{Ag}_3\text{PO}_4$ . — Yellow powd.; turns brown w. heat. — *Sol.*, nitric acid; insol. W. — Affected by light. — *Uses:* In photogr. inst. of  $\text{AgNO}_3$  for collodion emulsions.

### Silver-Protalbin. — see Largin

### Silver Quinaseptolate. — see Argentol

### Silver Salicylate Merck (100

$\text{C}_6\text{H}_4\text{OH.CO}_2\text{OAg}$ . — Wh. to reddish-wh. cryst. — *Sol.* W., A. — Affected by light.

### Silver Silvinate. — see Silver Sylvate

### Silver Sulphate Merck (22

$\text{Ag}_2\text{SO}_4$ . — Sm., lustr., rhombic prisms. — *Sol.*, sl. W.

### Silver Sulphide Merck (75

$\text{Ag}_2\text{S}$ . — Grayish-black, heavy powd. — Insol. W. — *Uses:* Techn., in manuf. niello.

### Silver Sulphocarbolate. — see Silver Phenolsulphonate

### Silver "Sulphoichthyolate." — see Ichthargan

### Silver Sulphophenylate. — see Silver Phenolsulphonate

### Silver Sylvate Merck (40

(Silver Silvinate). —  $\text{C}_{20}\text{H}_{20}\text{AgO}_2$ . — Brownish-gray, cryst. powd. — Insol. W. & A.

### Silver Tartrate (60

$\text{Ag}_2\text{C}_4\text{H}_4\text{O}_6$ . — Fine, wh. powd.

### Silver Trinitrophenolate. — see Picratol

### Silver Vitellin. — see ArgyroI

### Silver & Potassium Cyanide Merck (50

$\text{AgCN.KCN}$ , or  $\text{AgK(CN)}_2$ . — Wh. cryst.; perm't in the light. — *Sol.* 4 W. at 20° C.; 25 A. (85° C.). — *Bactericide*; *Antisep.* — *Uses:* One part in 50,000 destroys anthrax bacilli in blood serum. — *Techn.*, in silvering-solutions. — *Incomp.*, acids. — *Caut.* Very poisonous!

### Silver & Sodium Chloride Merck (60

$\text{AgCl.NaCl}$ , or  $\text{AgNaCl}_2$ . — Wh., hard cryst. — Decomp. by W. into  $\text{AgCl}$  &  $\text{NaCl}$ . — *Incomp.* W. — *Caut.* Keep fr. light.

### Silver & Sodium Thiosulphate Merck (70

$\text{Ag}_2\text{S}_2\text{O}_3.2\text{Na}_2\text{S}_2\text{O}_3+2\text{H}_2\text{O}$ , or  $\text{Ag}_2\text{Na}_4(\text{S}_2\text{O}_3)_3+2\text{H}_2\text{O}$ . — Wh. to gray. cryst. powd.; sweet taste. — *Sol.* W. — *Uses:* Techn. — *Caut.* Keep fr. light.

### Silver & Thallium Nitrate Merck (65

V. heavy, wh., cryst. powd. — *Sol.*, eas. W. — Affected by light. — *Melt.* 75° C. — *Sp. Gr.* 4.5 at 15° C. — 50%  $\text{TiNO}_3$ . — *Uses:* In mineralogy for separating minerals of sp. gr. below 4.5.

### Silybum Marianum. — see Carduus Marianus

### Simaba

(Cedron Seed; Rattlesnake Beans). — Seeds of Simaba Cedron, Planchon. Simarubaceae.

*Habit:* New Granada; Colombia. — *Ethmol:*

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



"Simaba Cedron" is the Guiana name of the tree. — *Constit.*: Celin (glucoside). — *Uses*: Remedy for malaria & dyspep. & as antidote to snake bites & dog bites; also used in chol morbus, febril neural, gout, colic, & hydrophob. — *Dose*: Fl'd. extr., 1-10 ℥ (0.06-0.6 G.).

## Simaruba

(Mountain Danson, Bitter Danson; Paradise Tree, Parabat). Bark of *Simaruba officinalis*, De C. — *Simaruba*. — *Habit.*: Guiana; Martinique; Jamaica. — *Etymol.*: "Simaruba" is the Guiana name for the plant. — Long pieces, light, flexible, tenacious, fibrous; extern., light brownish-yellow; intern., pale-yellow; odorless; bitter taste. — *Constit.*: Quercin,  $C_{12}H_{14}O_6$ ; volatil. oil, resinous matter. — *Tonic*: Cathart. — *Antipyr.* — *Uses*: Anorexia, constip., &c., like quassia. — *Doses*: S 25 grains (0.5-1.6 Gm.) sev. t. p. d. in 1-15 infus. — *Alcoh. extr.*, 5-10 grains (0.3-0.6 Gm.). — *Fl'd. extr.*, 15-60 ℥ (1-4 G.).

## Simul

Fruit (seeds) of *Capparis coriacea*, Burch. — *Capparidaceae*. — *Habit.*: Peru. — *Etymol.*: Fr. Arab. "kabar," or Grk. "kapparis," fr. "kaptein," to bite, to eat, referring to the use of the caper (*Capparis spinosa*) in cookery. — *Antihyst.*; *Antiepilep.* (like bromides). — *Uses*: Hyst., nervousness, & epilepsy. — *Dose*: Tinct., 60-120 ℥ (4-8 G.) several t. p. d.; in subacute salpingo-oophoritis, 30-60 ℥ (2-4 G.).

## Sinapis Alba.—U. S. P.

(White Mustard; Yellow Mustard; Semen Crucif.). — Seed of *Sinapis alba*, L. (*Brassica alba*, Boiss.), Cruciferae. — *Habit.*: Europe; Asia; adv. in U. S. — *Etymol.*: Grk. "sinapi," more vigorously expressive form of "napi," mustard (fr. Celtic "nap," a turnip), referring to the pungency of the seed. — *Constit.*: Sinapine; sinalbin; myrosin; crucin; crucic acid; fixed oil; mucilage; behenic acid; sinapolic acid. — *Irritant*; Stim.; Rubefac.; Vesicant; Diur.; Carmin.; Dietetic. — *Uses*: Hemorrhoidal affections & in tendency to flatulence. — *Dose*: 15-60 grains (1-4 Gm.); as emetic, 120 grains (8 Gm.).

## Sinapis Nigra.—U. S. P.

(Black Mustard; Red Mustard). — Seed of *Brassica nigra* (L.), Koch, Cruciferae. — *Habit.*: Europe; Asia; natur. in U. S. — *Etymol.*: See *Sinapis Alba*. — "Brassica" fr. Celtic "bresic," cabbage, i.e., fr. resemblance of the fruit. — *Constit.*: Sinigrin,  $KC_{10}H_{11}NS_2O_{10}$ ; myrosin; sinapine,  $C_{12}H_{25}NO_2$  (Gadamer); sinapine sulphocyanide; fixed oil; crucic (brassic) acid; behenic acid; sinapolic acid; myronic acid (or its potassium salt); mucilage; proteids. — *Dietetic*; Carmin.; Local irrit.; Rubef. — *Uses*: *Techn.*, source of volatil. oil mustard. — *Dose*: 15-60 grains (1-4 Gm.); as emetic, 120 grains (8 Gm.).

## Sinistrin.—see Inulin

## Sinkaline.—see Choline

## Sisymbrium

(Hedge Mustard; Bank Cross; Hedge Weed). — Whole plant *Sisymbrium (Erysimum) officinale*, Scopoli, Cruciferae. — *Habit.*: Middle & southern Europe; northern Asia; natur. in U. S. — *Etymol.*: Fr. Grk. "eryon," to save, referring to the curative properties of the plant. — "Sisymbrium" was the Grk. name for an allied plant. — *Constit.*: Erysimum. — *Uses*: In hoarseness, colds, acute laryngeal catarrh, &c. — *Dose*: 1 oz. (30 Gm.) daily, in form of decoct.

## Skatol Merck.—Synthetic (5000)

(Betamethylindole; Skatol). — *Constit.* of human feces, can be prod. by fus. egg-albumen w. potass. hydroxide. —  $C_8H_9N$ , or  $C_8H_4(C_2H_5)(CH_3)NH$ . — Wh. to brownish, thin scales; v. disagr., fecal odor. — *Sol.*, hot W., A., E., C., & B. — *Melt.*, 93-95° C.

## Skullcap.—see Scutellaria

## Slag Wool.—see Glass-Wool

## Smartweed.—see Polygonum Hydropiper

## Smilacin Merck.—Amorph.

(Parillin; Salseparin; Parillinic Acid; Sarsaparilla Saponin). — Amorph. saponin (glucoside) fr. root *Smilax officinalis*, Kunth, & o. sp. — Wh. to yellowish-wh. powd. — *Sol.* W., A. — *Alter.*; Expectant.; Emetic. — *Uses*: Syph., colds, &c. — *Dose*: 1-3 grains (0.06-0.2 Gm.) sev. t. p. d.

## do. Merck.—Cryst. (2500)

Crystallized saponin (glucoside) fr. root *Smilax officinalis*, Kunth, & o. sp. —  $C_{26}H_{44}O_{13} + 2\frac{1}{2}H_2O$ . — Wh. cryst. — *Sol.* A.

## Smilax.—see Sarsaparilla

## Smilax China

(China Root). — Rhizome of *Smilax China*, L. Smilacae. — *Habit.*: China; Cochin China; Japan. — *Etymol.*: Grk. "smile," a scraper, referring to the spiny stem. — "China" has reference to the habitat of the drug. — Large, ligneous, knotty pieces 2-6 in. (5-15 Cm.) & more long & 1-2 in. (25-50 Mm.) diam.; extern., grayish-brown; intern., light-flesh or yellowish-white; inodor.; sl. astring. taste. — *Constit.*: Smilacin; resin; starch. — *Diur.*; Antisyph.; Antirheumat.; Antipodagr. — *Uses*: As of sarsaparilla, but less active.

## Smooth Alder.—see Alnus Serrulata

## Snake Head.—see Chelone

## Snakeroot.—see Serpentaria

## Snakeroot, Black.—see Cimicifuga

## Snakeroot, Canada.—see Asarum Canadense

## Snakeroot, European.—see Asarum Europæum

## Snakeweed.—see Bistort

## Sneezewort.—see Ptarmica

## Snowberry.—see Cahinca

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Snowdrop Tree*.—see **Chionanthus**

*Soap Bark*.—see **Quillaja**

### Soap Soft Merck

(Green Soap).—Soap made fr. linseed oil & KOH. — Yellowish-green, slippery, soft mass. —*Sol.*, hot W., hot A.—Detergent.; Antisep.; Disinfect. — *Uses: Extern.*, in skin diseases — eczema, itch, &c., & to facilitate resorption of chron. scrofulous & syphilitic lymphatic swellings, & of exudates in serous cavities.—*Appl.*, by inunction 1-2 t. p. d.

*Soap Solution*. — see **Boutron-Boudet's**, & **Clark's**, Soap Solution

*Soapwort*.—see **Saponaria**

*Soda*; or *Soda*, *Caustic*.—see **Sodium Hydroxide**

*Soda-lime*.—see **Sodium Hydroxide with Lime**

*Soda Lye*.—see **Sodium Hydroxide, Solution**

### Sodium Merck

*Etymol.*: Fr. "soda," this fr. "sod-ash," the residue fr. burning masses or "sods" of marine plants. Lat. "natrium," fr. Hebrew "nether," or, fr. Spanish "natron," Arabic "natrun," native sodium carbonate.—First obtained by Davy in 1807, electrolytically.—Metal.—Na.—Light, soft, ductile, mall. metal; silver-wh. luster, where freshly cut; dull gray when oxidized by air.—*Uses*: In manuf. o. metals, dehydrating ether & o. organic compounds, & as reducer in organic chemistry. — *Caut.* Must be kept immersed in a liquid free fr. oxygen, such as naphtha or benzene.

### Sodium Merck.—Reagent

Na.—Silvery-white when freshly cut, but rapid. bec. dull on expos. to air, & bec. covered w. crusts of NaO, NaOH, &  $\text{Na}_2\text{CO}_3$ .—Wax-like consist. at ord. temp.; brittle at low temp. — *Tests: (Foreign Met.)* a: clean 1 Gm. w. pieces of filter-paper, cut into sm. pieces, & throw into 20 Cc. cold  $\text{H}_2\text{O}$ —solut. should not be affected by  $(\text{NH}_4)\text{HS}$ ; b: 1 Gm. + 20 Cc.  $\text{H}_2\text{O}$  + 10 Cc.  $\text{HCl}$  (sp. gr. 1.124) + aqu.  $\text{H}_2\text{S}$ —no react. — *Uses*: Prepar. volumetric soluts.; reducer; detect.  $\text{HNO}_3$ ,  $\text{SO}_2$ , As; prepar. H; dehydrating agent; flux.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

*Sodium Abietinate*.—see **Sodium Sylvate**

### Sodium Acetate Merck.—Highest Purity, cryst. (1

$\text{NaC}_2\text{H}_3\text{O}_2 + 3\text{H}_2\text{O}$ . — Colorl., monocl. cryst.; efflor. on expos.—*Sol.* 1 W., 23 A. at  $25^\circ\text{C}$ .; 0.5 boil. W. & 2 boil. A.—Diuretic.—*Uses*: Cystitis, dropsy, & o. dis. of urin. org.—*Techn.*, in photography.—*Dose* 15-120 grains (1-8 Gm.).

do. Merck.—Cryst.

*Uses*: Manuf. mordant for red; manuf. acetic

acid, acetic ether, Schweinfurth green, &c. Requires for fusion 4 times as much heat as an equal vol. W. can take up, & the heat is v. slowly given up. The salt is hence used for filling foot-warmers (chaufferettes), milk thermophores, &c.

### Sodium Acetate Merck.—Pure, fused

Gray sticks of radiated cryst.—*Uses*: Photogr.

### Sodium Acetate Merck.—Reagent

$\text{CH}_3\text{COONa} + 3\text{H}_2\text{O}$ . — Colorl., transp. cryst.; effloresc. in warm air.—*Sol.* 1 W.; 23 cold, 1 boil., A.—*Solut.* 1 Gm. in 1 Cc.  $\text{H}_2\text{O}$  is alkali. to litmus paper; it should not be reddened, or only v. sl'y, by solut. phenolphthalein. — *Tests: (Cl)* 1 Gm. + 20 Cc.  $\text{H}_2\text{O}$  + 1 Cc.  $\text{HNO}_3$  (sp. gr. 1.153) + solut.  $\text{AgNO}_3$ —no react. — ( $\text{H}_2\text{SO}_4$ ) 20 Cc. 1:20 solut. + solut.  $\text{BaCl}_2$ —no turb.—(*Heavy Met.*; *Ca*) 20 Cc. 1:20 solut. + aqu.  $\text{H}_2\text{S}$ —no react.; add  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ —no react.—(*Fe*) 1 Gm. + 20 Cc.  $\text{H}_2\text{O}$  + 1 Cc.  $\text{HCl}$  + solut. KSCN—no red color. — *Uses*: Detect. alkaloids; separ. opium alkaloids; precip. Fe & Al; determ.  $\text{H}_3\text{PO}_4$ .

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### Sodium Acetotungstate Merck

(Sodium Acetowolframate).—Wh., cryst. powd. —*Sol.* W.

*Sodium Acetsulphanilate*.—see **Cosaprin**

### Sodium Agaricinate

Wh., tastel. powd.—*Sol.*, eas. W.—Antihidrotic. — *Uses*: Night-sweats in phth. — *Dose*  $1\frac{1}{2}$ -3 grains (0.1-0.2 Gm.) at night.

### Sodium Alizarinsulphonate Merck

(Alizarin Carmine).—Sodium salt of acid formed by acting upon alizarin w. fum. sulphuric acid. —  $\text{NaC}_{14}\text{H}_5\text{O}_2(\text{OH})_2\text{SO}_3 + \text{H}_2\text{O}$ . — Orange-yellow powd.—*Sol.* W., A.—*Uses*: Dye.

### Sodium Alphanaphtholbetasulphonate.—see Sodium Naphtholsulphonate, Beta-

### Sodium Alphanaphthylaminesulphonate.—see Sodium Naphtylaminesulphonate, Alpha-

### Sodium Alum.—see Aluminum & Sodium Sulphate

### Sodium Amalgam Merck.—3%, 4%, 5%, & also 10%

(6; 7; 8; & 10) By adding sodium in sm. pieces to mercury heated to  $198^\circ\text{C}$ . — Silver-wh., cryst. mass. — Decomp. by W., hydrogen being slowly generated.—*Uses*: Chem.

### Sodium Amalgam Merck.—Reagent

(10) Gray pieces, the size of a pea; 2% metal. sodium. — *Uses*: Reduction of metal-haloids, detect.  $\text{SO}_2$ , prepar. H, &c.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1141=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Sodium Amidotartanaphtholsulfonate*.—see **Eikonogen**

*Sodium Aminosuccinate*.—see **Sodium Asparaginate**

**Sodium Amylsulphate Merck** (5)  
 $2\text{NaC}_8\text{H}_{17}\text{SO}_4 + 3\text{H}_2\text{O}$ .—Wh. to yellowish powd.—*Sol.* W.

**Sodium Amylxanthogenate Merck** (4)  
 $(\text{CH}_3)_2\text{CHCH}_2\text{CH}_2\text{OCS}_2\text{Na}$ .—Yellowish, cryst. powd.—*Sol.* W.—*Uses*. Destroy phylloxera.

*Sodium Anhydromethylencitrate*.—see **Citarin**

*Sodium Anilinesulphonate*.—see **Sodium Sulphanilate**

**Sodium Anisate Merck** (25)  
 $\text{C}_6\text{H}_4\text{OCH}_3\text{COONa} + \frac{1}{2}\text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.* W.—*Antipyr.*; *Antirheum.*; *Analg.*—*Uses*: Instead of *sod. salicylate* in sciatica, rheum., &c.—*Dose* 5–15 grains (0.3–1 Gm.) sev. t. p. d.

**Sodium Anthranilate Merck** (75)  
*(Sodium Orthoaminobenzoate)*.— $\text{C}_6\text{H}_4(\text{NH}_2)\text{COONa}$ .—Grayish-wh. to violet-gray powd.—*Sol.* W., A.

**Sodium Anthrarobinate Merck** (30)  
*Sodium compound of anthrarobin*,  $\text{C}_{14}\text{H}_{10}\text{O}_3$ .—Dark-brown powd.—*Sol.* W., A.—*Uses*: As anthrarobin in skin diseases (psoriasis, herpes, pityriasis, &c.).

*Sodium Antimonate*.—see **Sodium Pyroantimonate**

**Sodium Arsenate Merck.—Highest Purity, Medicinal** (1)

(*Sodium Arseniate*).— $\text{Na}_2\text{HAsO}_4 + 7\text{H}_2\text{O}$ , or,  $\text{AsO}(\text{OH})(\text{ONa})_2 + 7\text{H}_2\text{O}$ .—Clear, colorless, monocl. prisms; mild, alk. taste.—*Sol.* 1.2 W. at 25° C.; v. sol. boil. W.; spar. cold A.; alm. insol. boil. A. (U. S. P.).—*Alter.*; *Tonic*; *Antisep.*; *Antipyr.*—*Uses*: *Intern.*, for malaria, ague, debility, anemia, chorea, & nervous dis.—Also in baths for rheum. & gout, 30–90 grains (2–6 Gm.) for a bath; in cigarettes for asthma & phth.—*Dose*  $\frac{1}{60}$ – $\frac{1}{20}$  grain (0.001–0.003–0.008 Gm.) 2–3 t. p. d.—*Antid.*, emetics, stomach siphon, fresh ferric hydroxide, dialyzed iron, ferric hydroxide & magnesia, demulcents, stimulants, warmth, &c.—*Caut.* Poison!

**do. Merck.**—Pure, cryst. (1)  
 $\text{Na}_2\text{HAsO}_4 + 12\text{H}_2\text{O}$ .

**do. Merck.**—Pure, dry (2)  
*(Anhydrous Sodium Arsenate)*.— $\text{Na}_2\text{HAsO}_4$ , or,  $\text{AsO}(\text{OH})(\text{ONa})_2$ .—Wh., amorph. powd.; odorl.—*Sol.* 3 W. at 25° C.; v. eas. boil. W.; v. spar. cold A.; alm. insol. boil. A.—*Uses*: As the cryst. salt.—*Techn.*, in dyeing w. Turkey-red oil, & in printing fabrics.

**do.**—*Solution*.—U. S. P.  
 1 Gm. anhydrous *sod. arsenate* in 100 Cc. W.—

Clear, colorl. liq.—*Alter.*; *Antipyr.*; *Tonic*.—*Uses*: Skin dis., chorea, neural., malaria, &c.—*Dose* 3–10  $\text{m}$  (0.2–0.6 Cc.).—*Antid.*, emetics, stom. siphon, freshly pptd. ferric hydroxide, &c.

**Sodium Arsenate.**—*Solution*.—N. F.  
 1 Gm. cryst. *sod. arsenate* in 600 Cc. W.—*Dose* 3  $\text{m}$  (0.2 Cc.).

**Sodium Arsenite Merck** (1)  
 $\text{NaAsO}_2$ .—Grayish-wh. powd.; absorbs carbonic acid.—*Sol.* W.; sl. A.—*Uses*: *Antisep.* & *techn.*

**do. Merck.**—Crude (1)  
 $\text{NaAsO}_2$ .—Gray lumps.—*Uses*: *Techn.*, manuf. arsenical soap, for use on skins, hides, &c.

**Sodium Asparaginate Merck** (80)  
*(Sodium Aminosuccinate)*.— $\text{NaC}_4\text{H}_6\text{NO}_4 + \text{H}_2\text{O}$ , or,  $\text{COONa}.\text{CH}_2.\text{CH}(\text{NH}_2).\text{COOH} + \text{H}_2\text{O}$ .—Rhombic needles.—*Sol.* W.

*Sodium Aurobromide*.—see **Gold & Sodium Bromide**

*Sodium Auurochloride*.—see **Gold & Sodium Chloride**

*Sodium Azoalphanaphtholsulphanilate*.—see **Tropæoline 000, No. 1**

*Sodium Azobetanaphtholsulphanilate*.—see **Tropæoline 000, No. 2**

**Sodium Benzenesulphonate Merck** (12)  
*(Sodium Benzolsulphonate)*.— $\text{NaC}_6\text{H}_5\text{SO}_3$ .—Wh. cryst.—*Sol.* W.

*Sodium Benzidindisazobinaphthylaminesulphonate*.—see **Congo Red**

**Sodium Benzoate Merck.**—Gran. or powd. (1)  
 $\text{NaC}_7\text{H}_5\text{O}_2 + \text{H}_2\text{O}$ .—Wh., amorph., gran., or cryst. powd.; odorl.; sweetish, astring. taste.—*Sol.* 1.6 W., 43 A. at 25° C.; 1.3 boil. W., 12 boil. A., (U. S. P.).—*Antirheum.*; *Antipyr.*; *Antisep.*—*Uses*: Rheum., gout, uremia, cystitis, lithemia, tonsillitis, gravel, phth., puerperal fever, & marasmus. Said to dry up secretions of coryza or bronch. of a cold quickly.—Also as preservative.—*Dose* 10–60 grains (0.6–4 Gm.).—As inhalations in chron. pharyngitis, 5% solut.

*Note*.—This article is specially adapted for wide & general use; it is carefully prepared so as to be of full strength and high purity.

**do. Merck.**—Fr. Natural Benzoic Acid (4)  
*Uses, Doses, &c.*: As of preceding.

*Sodium Benzolsulphonate*.—see **Sodium Benzenesulphonate**

**Sodium Benzosulphinide**

(*Sodium Benzoylsulphonate* or *Orthosulphaminebenzoate*; *Sodium salt of Saccharin*).— $\text{C}_6\text{H}_4(\text{CO})\text{SO}_2\text{N}.\text{Na} + 2\text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.*, eas. W.—*Antisep.*—*Uses*: Intest. affect., keratitis, corneal opac., corneal ulcers, iritis, &c.—*Dose*: As intest. antisep., 15 grains (1 Gm.)

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



1-2 t. p. d. in wafers (to avoid intens. sweet taste).—*Appl.*, in ocular affect. 1-3:6 aqu. solut.

**Sodium Benzosulphite Merck**

(6)

Wh., cryst. powd.—*Sol.* W.—*Antisep.*—*Uses:* Locally as lotion in 0.4-5% solut.

*Sodium Benzoylsulphonate.*—see **Sodium Saccharinate**

*Sodium Betanaphtholalphasulphonate.*—see **Sodium Naphtholsulphonate, Alpha-**

*Sodium Betanaphtholate.*—see **Microcidin**

*Sodium Biborate.*—see **Sodium Borate**

**Sodium Bicarbonate Merck.—Highest Purity, powder & cryst.**

(1)

(Acid Sodium Carbonate; Baking Soda).— $\text{NaHCO}_3$ .—Wh., opaque powd., or cryst. lumps; cooling, mildly alk. taste.—*Sol.* 12 W. at 25° C.; insol. A.—*Antacid*; *Antipyr.*; *Antisep.*—*Uses:* Acid stom., pneum., diphth., memb. croup, diab., lithiasis, cystitis, &c.—*Techn.*, in manuf. pure sod. carbonate, mineral waters, effervesc. salts & beverages, baking powd.; treating silk & wool, & in gilding & platinum plating solutions; also chem.—*Dose* 15-60 grains (1-4 Gm.); in isidism, gout, diabetic coma, and vomit. of pregnancy 2 oz. (60 Gm.) and more p. d.—*Caut.* Should not be given as acid antidote, as it evolves large quant. of carbon dioxide.

**do. Merck.—Powder**

(1)

**Sodium Bicarbonate Merck.—Reagent**

(2)

$\text{NaHCO}_3$ .—Wh., cryst. crusts, or cryst. powd.—*Sol.* 12 W.; insol. A.—*Aqu. solut.* sl'y alk. to litmus paper.—*Tests:* ( $\text{H}_2\text{SO}_4$ ) 2 Gm. + 30 Ce.  $\text{H}_2\text{O}$  + 10 Ce.  $\text{HCl}$  (sp. gr. 1.124); boil; add solut.  $\text{BaCl}_2$ —no ppt. within 12 hrs.—(*S*) 5 Gm. + 15 Ce.  $\text{H}_2\text{O}$  + 25 Ce.  $\text{HCl}$  (sp. gr. 1.124); diss. in platin. dish; evap. solut. on W.-bath; dry res.  $\frac{1}{2}$  hr. at 120° C., then diss. in 3 Ce.  $\text{HCl}$  (sp. gr. 1.124) + 25 Ce.  $\text{H}_2\text{O}$ —solut. perf. clear.—(*Cl*; *Thiosulphate*; *As*) 1 Gm. + 50 Ce.  $\text{H}_2\text{O}$  + 5 Ce. dil.  $\text{C}_2\text{H}_5\text{H}_2\text{O}_2$  + solut.  $\text{AgNO}_3$ —at most faint opalesc.—( $\text{H}_3\text{PO}_4$ ) 2 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 20 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + 10 Ce. solut. ammon. molybd.; heat to 30-40° C.—no yellow ppt. within 2 hrs.—(*Heavy Met.*) *a*: 3 Gm. + 40 Ce.  $\text{H}_2\text{O}$  + 8 Ce.  $\text{HCl}$  (sp. gr. 1.124) + aqu.  $\text{H}_2\text{S}$ —no react.; add 5 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96) + few drops  $(\text{NH}_4)\text{HS}$ —no green or brown color, & no ppt.; *b*: 1 Gm. + 15 Ce.  $\text{H}_2\text{O}$  + 2 Ce.  $\text{HCl}$  (sp. gr. 1.124) + solut.  $\text{KSCN}$ —no red color.—(*K*) observe flame color through cobalt glass—no red (or at most transient) color.—( $\text{Na}_2\text{CO}_3$ ) *a*: 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$ ; diss. at not above 15° C., & avoid excess. shaking; add 3 drops solut. phenolphthalein—no immed. red color, or if any, it should disapp. on add. 0.2 Ce. decimorm.  $\text{HCl}$ ; *b*: dry 1 Gm. over  $\text{H}_2\text{SO}_4$ ; ignite—residue not more than 0.638 Gm.—( $\text{NH}_3$ ) heat 1 Gm. in test-tube—no  $\text{NH}_3$  vapors evolved (test w. moist curcuma paper).—(*HSCN*) 1 Gm. + 3 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + 17 Ce.  $\text{H}_2\text{O}$  + 1 drop solut.  $\text{FeCl}_3$ —no red color,—

*Uses:* Detect. alkaloids in forensic analysis; starting material for volumetric soluts., etc.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Bicarbonate Saccharated.—N. F.**

Sod. bicarb., 3, & powd. sugar, 1.

*Sodium Bichromate.*—see **Sodium Dichromate**

**Sodium Bifluoride Merck**

(2)

$\text{NaHF}_2$ .—Wh., cryst. powd.—*Sol.* W.—*Powerful Antisep.*—*Uses:* Preservative, etching glass, & fixing zoological specimens.

**Sodium Bilactate Merck**

(10)

$\text{NaH}(\text{C}_3\text{H}_5\text{O}_2)_2$ .—Colorl. liq.—*Sol.* W., A.

**Sodium Binoxalate Merck**

(2)

(Acid Sodium Oxalate).— $\text{NaHC}_2\text{O}_4$ .—Wh., monoel. cryst.—*Sol.* 60 W. at 15° C.—*Uses:* *Techn.*—*Caut.* Poison!

*Sodium Biphosphate.*—see **Sodium Phosphate, Monobasic**

*Sodium Bipyrophosphate.*—see **Sodium Pyrophosphate, Acid**

**Sodium Bisulphate Merck.—Pure, cryst.**

(1)

(Acid Sodium Sulphate).— $\text{NaHSO}_4 + \text{H}_2\text{O}$ .—Large, colorl. cryst.—*Sol.* W.—*Uses:* As addition to drinking water (3:10,000) to prevent typhoid infection in the field.

**do. Merck.—Pure, fused**

(1)

*Sol.* W.

**do.—Pure, dry**

(1)

Grayish-wh. cryst. or masses.—*Uses:* *Techn.*, for liberating  $\text{CO}_2$  in carbonic-acid baths, in thermophores, decomposing crude phosphates for analysis, preparing neutral sod. sulphate, &c.

**Sodium Bisulphate Merck.—Reagent**

(2)

$\text{NaHSO}_4 + \text{H}_2\text{O}$ .—Colorl. cryst., or wh., fused pieces.—*Sol.*, eas. W.—*Aqu. solut.* strongly acid to litmus paper.—*Tests:* (*Heavy Met.*) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + aqu.  $\text{H}_2\text{S}$ —no react.; make alk. w.  $\text{NH}_4\text{OH}$  & add  $(\text{NH}_4)\text{HS}$ —no react.—(*Cl*) 20 Ce. 1:20 solut. + solut.  $\text{AgNO}_3$ —no turb.—(*As*) 1 Gm. + 3 Ce. solut.  $\text{SnCl}_2$ —no dark color within 1 hr.—(*K*) observe flame color through cobalt glass—at most only transient red color.—*Uses:* Flux, especially suitable for decomposing minerals.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Bisulphite.—Cryst.**

(1)

(Leucogen).— $\text{NaHSO}_3$ .—Wh., cryst. powd., or prism. cryst.; faint sulphurous odor; disagree. taste.—*Sol.* 3.5 W., 70 A. at 25° C.; nbt. 2 boil W.; 49 boil. A. (U. S. P.).—*Antisep.*; *Antipyr.*

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# **MERCK'S 1907 INDEX**

—*Uses.* Intern., sore mouth, diphth., yeast vomiting. *Extern.*, skin dis. Also chem. & techn.—*Dose* 10-30 grains (0.6-2 Gm.).—*In-comp.*, acids

**Sodium Bisulphite Merck.**—Pure, dry (1)  
do. Merck.—Commercial, dry (1)

$\text{NaHSO}_3$ .—Antiseptic.—*Uses.* Techn., as disinfectant & bleach, particularly for wool, in dyeing for preparing hot & cold indigo vats; in paper-making in place of antichlor for removing chlorine fr. bleached fibers like straw, wood, paper, rags, & cotton; as preservative for egg-yolk (in manuf. of gloves) & of saccharine liquids; preparing pure aldehydes; & as antiseptic in fermentation industries.

**Sodium Bisulphite Merck.**—Reagent (3)

$\text{NaHSO}_3$ .—Wh. powd.; odor of  $\text{SO}_2$ .—*Sol.* A W.—*Aqu.* solut. acid to litmus paper.—*Tests:* (*Heavy Met.* & *As*) 5 Gm. + 5 Cc. conc.  $\text{H}_2\text{SO}_4$  (sp. gr. 1.84); evap. on sand-bath; diss. res. in 20 Cc.  $\text{H}_2\text{O}$ ; *a*: 10 Cc. solut. + aqu.  $\text{H}_2\text{S}$ —no react.; *b*: 10 Cc. solut. + solut. ammon. molybd. in  $\text{HNO}_3$ ; heat to 70-80° C.—no yellow color or yellow ppt.—*Uses:* Reducing agent, especially arsenic to arsenous acid; determ. aldehydes, especially cinnamic aldehyde.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Bitartrate Merck.**—Cryst. & powd. (2)

$\text{NaHC}_4\text{H}_4\text{O}_6 + \text{H}_2\text{O}$ .—Wh. cryst. or powd.—*Sol.* 9 W.; 1.8 boiling W.—*Uses:* Chiefly reagent.

**Sodium Borate Merck.**—Highest Purity, Medicinal, cryst. & powder (1)

(Borax; Sodium Tetraborate; Sodium Pyroborate; Sodium Baborate).— $\text{Na}_2\text{B}_4\text{O}_7 + 10\text{H}_2\text{O}$ .—Hard, wh. cryst., or wh. powd.; sweetish, alkali. taste.—*Sol.* 1 G. at 80° C. (17 W. at 25° C.; 0.5 boil. W.; insol. A., U. S. P.).—Antisep.; Emmen.; Antiepil.—*Uses:* Intern., amenorr., dysmenorr., epilepsy, uric-acid diathesis, diar., skin dis., diphth., sore mouth, conjunctivitis, urethritis, &c.; also as gargle & paint; as collyr. in conjunctiv. in 1-5:100 solut., lotions, &c. In aphthae & sprue in infants, give w. honey.—Also techn. as preserv., either alone or mixed w. o. antiseptics.—*Dose* 15-60 grains (1-4 Gm.) p. d.

do. Merck.—Fused (2)

(Borax Glass).— $\text{Na}_2\text{B}_4\text{O}_7$ .—Wh., glass-like plates; bec. opaque on expos. to the air.—*Sol.* W.—*Uses:* Anal.; & techn., in aqu. solut. for wood-fungus (dry-rot).

do. Merck.—Calcined (1)

$\text{Na}_2\text{B}_4\text{O}_7$ .—Wh., v. light powd.—*Sol.* W.—*Uses:* As of sodium borate.

do. Merck.—Refined, powd. (1)

Wh. powd.—*Uses:* Techn.

**Sodium Borate Merck.**—Reagent.—Cryst. (2)

(Borax).— $\text{Na}_2\text{B}_4\text{O}_7 + 10\text{H}_2\text{O}$ .—Hard, colorl. cryst., or cryst. pieces. *Sol.* 17 cold, 0.5 boil. W.; freely in G., insol. A.—When heated, it swells, the water of cryst. being expelled. At red heat the anhydr. borax fuses to a transp., colorl. mass.—*Aqu.* solut. alkali. to litmus paper; when acidul. w.  $\text{HCl}$  solut. colors curcuma paper brown which, when paper dries, becomes greenish-black when moistened w.  $\text{NH}_4\text{OH}$ .—*Tests:* ( $\text{H}_2\text{CO}_3$ ;  $\text{H}_2\text{SO}_4$ ) 1 Gm. + 20 Cc.  $\text{H}_2\text{O}$  +  $\text{HCl}$ —no effervescence; add solut.  $\text{BaCl}_2$ —no react.—(*Cl*) 20 Cc. 1:20 solut. + 3 Cc.  $\text{HNO}_3$  (sp. gr. 1.53) + solut.  $\text{AgNO}_3$ —at most only sl't turb.—*Uses:* Blowpipe work, metallurgy, volum. anal.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

do. Merck.—Reagent.—Purest, cryst. (2)

*Tests:* ( $\text{H}_2\text{O}$ ) ignite 1 Gm.—res. 0.520 Gm.—( $\text{H}_2\text{CO}_3$ ;  $\text{H}_2\text{SO}_4$ ) 1 Gm. + 20 Cc.  $\text{H}_2\text{O}$  + 1 Cc.  $\text{HCl}$ —no effervescence; add solut.  $\text{BaCl}_2$ —no react.—(*Cl*) 20 Cc. 1:20 solut. + 3 Cc.  $\text{HNO}_3$  (sp. gr. 1.53) + solut.  $\text{AgNO}_3$ —no react.—(*Ca*) 1 Gm. + 20 Cc.  $\text{H}_2\text{O}$  + solut.  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ —no turb.—(*Fe*; *o. Met.*) *a*: 1 Gm. + 20 Cc.  $\text{H}_2\text{O}$  + 2 Cc.  $\text{HCl}$  (sp. gr. 1.124) + solut.  $\text{KSCN}$ —no red color; *b*: 20 Cc. 1:20 solut. + 2 Cc.  $\text{HCl}$  (sp. gr. 1.124) + aqu.  $\text{H}_2\text{S}$ —no react.—*Uses:* As of preceding.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

do. Merck.—Reagent.—Calcined (3)

$\text{Na}_2\text{B}_4\text{O}_7$ .—Wh., spongy mass, or wh. powd.; at least 75% anhydr.  $\text{Na}_2\text{B}_4\text{O}_7$ .—*Tests:* As detailed under sod. borate cryst., 0.7 Gm. calcined borax, however, being taken instead of 1 Gm.—*Uses:* As of sod. borate, cryst.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

do. Merck.—Reagent.—Fused (4)

(Borax Glass; Anhydrous Borax).— $\text{Na}_2\text{B}_4\text{O}_7$ .—Colorl., vitr. pieces; absorb moist. fr. air & bec. turbid.—*Tests:* As detailed under sod. borate, cryst., taking, however, 0.5 Gm. fused borax inst. of 1 Gm.—*Uses:* As of sod. borate, cryst.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Borate, Meta.**—see **Sodium Metaborate**

**Sodium Borate (Neutral) Merck** (3)

(Sodium Metaborate; improperly "Sodium Tetraborate").— $\text{NaBO}_2 + \text{H}_2\text{O}$ .—Glass-like masses.—*Sol.* W.—Antiseptic.—*Uses:* *Extern.*, dis. of nose & ear; a cold, satur. solut. used for bandages.—See also Sodium Metaborate.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S on your orders**

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Sodium Borobenzoate Merck.**—*N. F.* (6)  
Mixt. 3 parts sodium borate & 4 parts sodium benzoate.—Wh., cryst. powd.—*Sol. W.*—Antisept.; Antilithic; Diur.—*Uses:* Rheum., gravel, & puerperal fever.—*Dose* 30–120 grains (2–8 Gm.).

**Sodium Borocitrate Merck** (4)  
Mixt. sodium citrate & borax.—Wh. powd.—*Sol. W.*—Antilithic; Diur.—*Uses:* Lithemia & lithemic gravel.—*Dose* 15–30 grains (1–2 Gm.).

**Sodium Borosalicylate Merck** (4)  
(Borsalyl).—React.-prod. sodium salicylate, boric acid & W.— $(C_6H_5)_2COONa.CO_2H.B(OH)_3$ .—Wh. powd.—*Sol. W.*—Antisept.; Antirheum.; Analg.—*Uses:* Rheum., gout, scarlat., pleurisy, & chorea; also techn. as preservat.—*Dose* 5–30 grains (0.3–2 Gm.).—*Appl.*, w. glycerin, lanum, petrolatum, &c.

**Sodium Borotartrate Merck** (4)  
Mixt. sod. tartrate & borax.—Wh. powd.—*Sol. W.*—Antisept.; Diur.—Lithemia & lithemic gravel.—*Dose* 30–120 grains (2–8 Gm.).

**Sodium Bromate Merck** (10)  
 $NaBrO_3$ .—Colorl. cryst.—*Sol. W.*

**Sodium Bromate Merck.—Reagent** (14)  
 $NaBrO_3$ .—Lustr. cryst., or cryst. powd.—*Sol.* 3 cold, 1.5 boil. W.—*Tests:* ( $NaBr$ ) 2 Gm. + 20 Cc.  $H_2O$  + 5 Cc. dil.  $H_2SO_4$ —no immed. yellow color.—*Uses:* Substitute for bromine; starting material for volumetric soluts.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Bromide Merck** (1)  
 $NaBr$ .—Wh., cryst. powd.; saline, flbl. bitter taste; absorb moist. fr. air without being deliq.—*Sol.*, abt. 1.7 W., 12.5 A. at 25° C.; 0.8 boil. W., 11 boil. A., (U. S. P.).—Sed.; Alter.; Diur.—*Uses:* Epilepsy, headache, nymphomania, satyriasis, delir. trem., insom., nervousn., hyst., scrof., &c. Cont. more bromine than potass. bromide, & is less depressing.—*Techn.*, in photogr.—*Dose* 5–60 grains (0.3–4 Gm.); in epilepsy, beginning w. 15–30 grains (1–2 Gm.) & increasing to 150 grains (10 Gm.) p. day.—*Caut.* Keep well stoppered.

**Sodium Butylsulphate (Iso-) Merck** (10)  
 $NaC_4H_9SO_4$ .—Colorl. cryst.—*Sol. W.*

**Sodium Butyrate Merck** (5)  
 $NaC_4H_7O_2$ .—Deliq. cryst.—*Sol. W.*

**Sodium Cacodylate Merck** (28)  
(Sodium Dimethylarsenate).— $(CH_3)_2AsO_2ONa + 3H_2O$ .—Amorph., wh. powd.—*Sol. W.*—Alter.; Hematinic.—*Uses:* Instead of arsenates (because far less toxic) in anemia, chlorosis, tuberculosis, malarial cachexy, leukemia, diabetes, Basedow's disease, chorea, psoriasis.

—*Doses:* Adults,  $\frac{1}{2}$ –2 grains (0.03–0.12 Gm.) p. d.; in skin diseases,  $\frac{3}{4}$  grain (0.05 Gm.) 1–5 t. p. d. Children, 10–15 yrs.,  $\frac{1}{2}$ – $\frac{2}{3}$  grain (0.03–0.04 Gm.) p. d.; 6–10 yrs.,  $\frac{1}{3}$ – $\frac{1}{2}$  grain (0.02–0.03 Gm.) p. d.; 3–4 yrs.,  $\frac{1}{6}$  grain (0.01 Gm.) p. d.—*Inf.*,  $\frac{3}{4}$ –1  $\frac{1}{2}$  grains (0.05–0.1 Gm.) in aqu. solut.—*Enema*,  $\frac{1}{10}$ – $\frac{1}{6}$  grain (0.006–0.01 Gm.) dissolved in 75 ml (5 Cc.) water, 2–3 t. p. d.

**Sodium Camphorate Merck** (30)  
 $Na_2C_{10}H_{14}O_4$ .—Wh., deliq. powd.—*Sol. W.*—Antiseptic; Antihidrotic.

**Sodium Cantharidate Merck** (1500)  
 $Na_2C_{10}H_{14}O_6 + 2H_2O$ .—Wh., cryst. powd.—*Sol. W.*—Antisept.; Antituberc.—*Uses:* As an inj. in laryngeal tuberculosis.—*Dose* 3–6 ml (0.2–0.36 Cc.) of 0.6:1000 solut. hypoderm.

*Sodium Carbolate.*—see **Sodium Phenate**

**Sodium Carbonate Merck.—Highest Purity, cryst.** (1)

(Soda).— $Na_2CO_3 + 10H_2O$ .—Large, colorl., monocl. cryst.; strongly alkaline taste; efflores. on expos.—98.9% pure.—*Sol.* 1.6 cold W., 0.2 boil. W.; 1 G.—Antacid.—*Uses:* Sour stomach, gout, uric-acid diathesis, skin dis., &c.—Seldom used internally.—*Extern.*, in eye washes (1:1000), mouth washes, injections, nasal douches, & gargles (1% solut.).—*Dose* 5–20 grains (0.3–1.3 Gm.) in water.—*Antid.*, acetic acid, lemon juice, olive oil, &c.

**do. Merck.—Highest Purity, anhydrous** (1)  
(Anhydrous Sodium Carbonate).— $Na_2CO_3$ .—Loose, wh. powd.—*Sol.* 2.2 W.—*Uses, &c.*: As of the preceding, only the dose is abt. one-half.—*Incomp.*, acids.—*Caut.* Poison!

**do. Merck.—Highest Purity, dried** (1)  
Approx.:  $Na_2CO_3 + H_2O$ .

**do. Merck.—Highest Purity, fused** (2)

**do. Merck.—Twice purified, cryst. & dry** (1)  
*Uses:* Techn., manuf. glass & soap, detergent, bleaching linen & cotton, washing wool, dyeing & printing fabrics, paper making, manuf. dyes & o. sodium salts, preventing boiler scale, in metallurgy, &c.

**do.—Commercial** (1)  
(Sal Soda).

**Sodium Carbonate Merck.—Reagent.—Cryst. (2)**  
(Soda).— $Na_2CO_3 + 10H_2O$ .—Colorl., transp. cryst.; efflores. in air; 37%  $Na_2CO_3$ .—*Sol.* 1.6 cold, 0.2 boil. W.; insol. A.—Aqu. solut. strongly alk. to litmus paper.—*Tests:* (*Impur. Insol. W.*) 20 Gm. + 80 Cc.  $H_2O$ —compl. sol.; colorl. solut.—(*NaOH*) 3 Gm. + 50 Cc.  $H_2O$  + solut. 6 Gm. cryst.  $BaCl_2$  in 30 Cc.  $H_2O$ ; add  $H_2O$  to make 100 Cc.; shake; filter; to 50 Cc. filtrate add solut. phenolphthalein—no red color.—( $H_2SO_4$ ) 10 Gm. + 50 Cc.  $H_2O$  + 10 Cc.  $HCl$  (sp. gr. 1.124); boil few min.; add solut.  $BaCl_2$ —no ppt. within 12 hrs.—(*Cl*) 5 Gm. + 50 Cc.  $H_2O$  + 10 Cc.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 53=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



$\text{HNO}_3$  (sp. gr. 1.153) + solut.  $\text{AgNO}_3$ —no turb. —(St) 20 Gm. + 30 Ce.  $\text{HCl}$  (sp. gr. 1.124); evap. in platin. dish to dryness on W-bath; dry res.  $\frac{1}{2}$  hr. at  $120^\circ\text{C}$ ., then diss. in 3 Ce.  $\text{HCl}$  + 50 Ce.  $\text{H}_2\text{O}$ —solut. perf. clear.—( $\text{HNO}_3$ ) 1 Gm. + 10 Ce. dil.  $\text{H}_2\text{SO}_4$ ; overlay on 5 Ce. solut. diphenylamine (0.5-100) in conc.  $\text{H}_2\text{SO}_4$  + 20 Ce.  $\text{H}_2\text{O}$ —no blue color zone.—( $\text{HPO}_4$ ) 20 Gm. + 50 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + 50 Ce. solut. ammon. molybd. in  $\text{HNO}_3$ ; let stand at abt.  $40^\circ\text{C}$ .—no yellow ppt. within 2-3 hrs.—(K) observe flame color through cobalt glass—no red color, or if any, only transient.—( $\text{NH}_4$  Compounds) 10 Gm. + 50 Ce.  $\text{H}_2\text{O}$  + 1 Ce. Nessler's solut.—no renet.—(Ca; Mg) 10 Gm. + 10 Ce.  $\text{H}_2\text{O}$  + 10 Ce.  $\text{HCl}$  (sp. gr. 1.124) + 5 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96) + solut. ( $\text{NH}_4$ ) $_2$  $\text{C}_2\text{O}_4$ —no renet.; add solut. ( $\text{NH}_4$ ) $_2$  $\text{HPO}_4$ —no renet.—(*Heavy Met.*) a: 20 Gm. + 50 Ce.  $\text{H}_2\text{O}$  + 20 Ce.  $\text{HCl}$  (sp. gr. 1.124) + aq.  $\text{H}_2\text{S}$ —no renet.; add 5 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96) + few drops ( $\text{NH}_4$ ) $\text{HS}$ —no turb., & no green color; b: 10 Gm. + 25 Ce.  $\text{H}_2\text{O}$  + 10 Ce.  $\text{HCl}$  (sp. gr. 1.124) + solut.  $\text{KSCN}$ —no red color.—(As) 30 Gm. + 100 Ce. dil.  $\text{H}_2\text{SO}_4$  (1:5); introd. solut. in sm. quant. into Marsh appar. started w. 20 Gm. As-free Zn & dil. (1:5)  $\text{H}_2\text{SO}_4$ —no precipit. in reduction tube within  $\frac{1}{2}$  hr.—*Uses*: Precipitant & neutralizer.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Carbonate Merck.—Reagent.—Dried (2** Wh., dry powd.; abt. 80%  $\text{Na}_2\text{CO}_3$ .—*Tests*: As of preceding, using, however, 0.45 Gm. dried sod. carb. instead of 1 Gm. cryst. for test.—*Uses*: As of sod. carbonate, cryst.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.—Reagent.—Anhydrous (2**  $\text{Na}_2\text{CO}_3$ .—Wh. powd.; 99-100%.—*Tests*: As described under sod. carb. cryst., using, however, 0.35 Gm. anhyd. sod. carb. instead of 1 Gm. cryst.—*Uses*: Starting material for prepar. volumetric soluts.; otherwise as of sod. carbonate cryst.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Carbonate Monohydrated Merck.—**  
**U. S. P. (1**

$\text{Na}_2\text{CO}_3 + \text{H}_2\text{O}$ .—Wh., gran., cryst. powd.; odort.; strgly alk. taste; efflores. in warm, dry air.—*Sol.* 2.9 W. at  $25^\circ\text{C}$ .; 1.8 boil. W.; 8 G.; insol. A., E.—*Uses*: As of sodium carbonate, cryst.; also very largely in photography.—*Dose* 3-8 grains (0.2-0.5 Gm.).

*Note*.—This monohydrated salt is well adapted for all general purposes; it should

always be used when a salt of the U. S. P. quality is called for.

**Sodium Carminate Merck (90**  
 $\text{C}_{11}\text{H}_{10}\text{O}_4\text{Na}_2$ .—Red powd.—*Sol.* W.—*Uses*: Microscopy.

**Sodium Chenocholate Merck (750**  
 $\text{NaC}_9\text{H}_7\text{O}_4$ .—Fr. chenocholic acid found in liver of goose.—Yellowish powd.—*Sol.* W.

**Sodium Chlorate Merck.—Highest Purity (1**  
 $\text{NaClO}_3$ .—Colorl. cryst.; odort.; cooling, saline taste.—*Sol.* 0.5 boil. W.; 5 G.; (abt. 1 W., 100 A. at  $25^\circ\text{C}$ .; 40 boil. A., U. S. P.).—Deodorant; Antisep.; Alter.—*Uses*: Intern., dipth., unigial scarlat., pharyngeal & laryngeal inflam., stomatitis, urethritis, mercurial pyidism, hemorrhoids, &c.—*Extern.*, as wash (1-5:100), gargle or inj.—Also chem. & techn.—*Dose* 5-10 grains (0.3-0.6 Gm.).—*Incomp.*, organic matters, easily oxidizable substs.—*Caut.* Must not be triturated w. sulphur or phosph., or any combustible substance, or a severe explosion may occur.

**do. Merck (1**

**Sodium Chlorhydrophosphate Merck.—Dry (8**  
By evap. solut. of sod. phosphate in hydrochl. acid.—Wh., cryst. powd.—*Sol.* W.

**Sodium Chloride Merck.—Highest Purity, Medicinal, cryst. (1**

(Table, Sea, or Common, Salt).— $\text{NaCl}$ .—Colorl., transp. cryst., or wh., cryst. powd.; pure saline taste.—*Sol.* 2.7 W.; 2.5 boiling W.; alm. insol. A.—Antisep.; Stomachic; Tonic; Cath.; Emetic.—*Uses*: Intern., interm. fever, hemoptysis, &c.—*Extern.*, bruises & sprains; in eye washes, 5% solut.; inhalations, 0.5-1% aq. solut.; in baths 2-20 lbs. (approx. 1-10 kilos) for a full bath; in sprays for inhalat., 40 grains (2.6 Gm.) each of sod. chloride & sod. bicarbonate to 10 fl. oz. (300 Ce.) water, in chronic catarrh of larynx & pharynx. In chron. coryza, 1-2% solut. for snuffing up nose.—Largely chem. & techn.—*Dose* 10-60-240 grains (0.6-4-15 Gm.).—Physiological Salt Solution for hypoderm. inj. consists of sod. chloride 10 grains (0.6 Gm.), sod. carbonate 15 grains (1 Gm.), & water  $3\frac{1}{3}$  fl. oz. (100 Ce.). In infantile summer diar., 90-120 ml (6-8 Ce.) solut. are inj. at one dose, or 1-1 $\frac{1}{3}$  fl. oz. (30-40 Ce.) p. day. For hypodermoclysis in acute anemia, cholera, & dysentery in children, a solut. is made of 6 grains (0.36 Gm.) sod. chloride, 5 grains (0.3 Gm.) sod. carbonate, &  $3\frac{1}{3}$  fl. oz. (100 Ce.) water, & a quantity up to 50 fl. oz. (abt. 1,500 Ce.) warmed to  $40^\circ\text{C}$ . being injected.

**do. Merck.—Highest Purity, dried, & fine powd. (1**

**do. Merck.—Highest Purity, fused (2**  
Wh., cryst. plates.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Sodium Chloride Merck.—Reagent** (2)

NaCl. Wh., cubic, cryst., or cryst. powd.—*Sol.* 2.7 W.—*Aqu.* solut. neutral to litmus paper.—*Tests:* ( $H_2SO_4$ ) 3 Gm. + 20 Cc.  $H_2O$ —solut. perf. clear; add 80 Cc.  $H_2O$  & 1 Cc. HCl (sp. gr. 1.124); boil; add solut.  $BaCl_2$ —no ppt. within 12 hrs.—(*Alkal. Earths; Heavy Met.*) 3 Gm. + 50 Cc.  $H_2O$ ; boil; add: *a:* solut.  $(NH_4)_2C_2O_4$ ; *b:*  $Na_2CO_3$ ; *c:*  $(NH_4)HS$ —no react. in any case—(*Mg*) 3 Gm. + 10 Cc.  $H_2O$  + 5 Cc.  $NH_4OH$  (sp. gr. 0.96) + solut.  $(NH_4)_2HPO_4$ —no ppt. within 3 hrs.—(*f*) 20 Cc. 1:20 solut. + 1 drop solut.  $FeCl_3$  + starch solut.—no blue color.—(*K*) 1 Gm. + 5 Cc. + solut.  $PtCl_4$ —no ppt. within 2 hrs.—(*Po*) 3 Gm. + 20 Cc.  $H_2O$  + 1 Cc. HCl + solut. KSCN—no red color.—(*NH<sub>4</sub> Salts*) 3 Gm. + 20 Cc.  $H_2O$  + Nessler's solut.—no react.—*Uses:* Chiefly prepar. volumetric soluts.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.—Reagent.—Fused** (3)

Colorl., translu. pieces.—*Tests:* As of preceding.—*Uses:* Producing sodium light for polariscopic & o. work; otherwise as of sod. chloride.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Chloriridate.**—see **Iridium & Sodium Chloride****Sodium Chloroborate Merck** (2)

Mixt. boric acid, sod. chloride, & sod. sulphate.—Wh., cryst. powd.—*Sol.* W.—Antisept.; Preserv.—*Uses:* Typhoid fever, dysent., &c.; also techn., as preservative.—*Dose* 15 grains (1 Gm.).

**Sodium Chloroplatinate.**—see **Platinum & Sodium Chloride, Platinic****Sodium Chloroplatinite.**—see **Platinum & Sodium Chloride, Platinous****Sodium Choleate Merck** (5)

(Sodium Choleinate).—Dried Purified Ox Gall.—Fr. ox gall, by removing mucus & coloring matters.—Yellowish-wh. powd.; attracts moisture readily.—*Sol.* W., A.—Tonic; Lax.; Cholag.—*Uses:* Deficient biliary secret., chronic constip., &c.—*Dose* 5–10 grains (0.3–0.6 Gm.).

**Sodium Chromate, Acid.**—see **Sodium Dichromate****Sodium Chromate Merck.—Pure, neutral** (2)

$Na_2CrO_4 + 10H_2O$ .—Yellow, transl., efflores. cryst.—*Sol.* 1.6 W.—*Melt.* 24° C.—*Uses:* Chem.

**do. Merck** (1)**Sodium Cinnamate Merck.—Highest Purity, Medicinal** (12)

(Sodium Cinnamate).— $NaC_9H_7O_2$ , or,  $C_6H_5CH:CH.CO_2Na$ .—Wh., cryst. powd.—*Sol.* W.—*Uses:* Intraven. in tuberculosis.—*Dose:*  $\frac{1}{10}$

grain (0.01 Gm.) gradl. increased to 1 grain (0.06 Gm.); by inj. 3–20 ml (0.2–1.3 Cc.) of 5% aq. solut. 3 t. p. week; likewise in surgical tuberculosis.

*Note.*—This salt is prepared specially so as to be free from all the usually associated impurities; it is therefore particularly well adapted for intravenous use in tuberculosis.

**Sodium Citrate Merck.—Acid** (2)

(Monosodium Citrate).— $NaC_6H_7O_7 + H_2O$ .—Wh. powd.—*Sol.* W.—Diur.; Antipyr.—*Uses:* Fevers.—*Dose* 5–50 grains (0.3–3.3 Gm.).

**Sodium Citrate Merck.—Neutral.—Highest Purity, Medicinal** (2)

$2Na_2C_6H_5O_7 + 11H_2O$ , or,  $2(C_3H_4[OH][COONa]) + 11H_2O$ .—Wh., cryst., or gran. powd.—*Sol.* 1.1 W. at 25° C.; 0.4 boil. W.; sl. A., (U. S. P.).—Diur.; Antipyr.; Antilithic; Refrig.—*Uses:* Gout, cystitis, rheum., & in fever.—*Dose* 10–60 grains (0.6–4 Gm.) several t. p. d.; in diabetes, 75–150 grains (5–10 Gm.) p. d.

**do. Merck** (1)**Sodium Citrobenzoate Merck** (6)

Mixt. sod. benzoate & sod. citrate.—Wh., bulky powd.—*Sol.* W.—Diur.; Antisept.; Antilithic.—*Uses:* Asthma, bronch., cystitis, & dis. of gen.-urin. org.—*Dose* 8–15 grains (0.5–1 Gm.) 2–3 t. p. d.

**Sodium Carulinsulphate.**—see **Indigo Carmine****Sodium Copaivate Merck** (20)

$NaC_{20}H_{29}O_2$ .—Yellowish powd.; absorbs moisture easily.—*Sol.* W.—Antisept.; Diur.—*Uses:* Gonorr., gleet, bronchorrhea, & dis. of muc. memb.—*Dose* 10–30 grains (0.6–2 Gm.) several t. p. d.

**Sodium Corallinate.**—see **Sodium Rosolate****Sodium Cresotate, Meta-, Ortho-, or Para-.**—see **Sodium Meta-, Ortho-, or Para-, Cresotate****Sodium Crotonoleate Merck.—1% Solut.** (12)

Solut. of sodium salt of crotonolic acid, the active consti. of croton oil.

**Sodium Cyanide Merck** (15)

$NaCN + 1$  (or 2) aq.—Wh., deliq., cryst. powd.—*Sol.* W.—Sedative.—*Uses:* Spasmodic cough, & nervous irritabil.—*Dose*  $\frac{1}{20}$ – $\frac{1}{4}$  grain (0.003–0.015 Gm.).—*Antid.*, emetic, stomach siphon, ferric & ferrous sulphates mixed, chlorine & amm. inhalations, &c.—*Caut.* Very poisonous!

**Sodium Dianisidindisazobinaphtholsulphonate.**—see **Benzoazurine G****Sodium Dichromate Merck.—Fused** (1)

(Sodium Bichromate; Acid Sodium Chromate).— $Na_2Cr_2O_7 + aq.$ —Red, deliq., cryst. fragments.—*Sol.* W.—Antisept.; Corros.; Astring.; Alter.—*Uses:* Intern., syph.—*Extern.*, sweat, feet, tuberc. elevations, syph. veget., & warts.—*Techn.*, to harden anatomical specimens, as oxidizer, & in

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



tanning, replaces the potassium dichromate very satisfactorily for most technical purposes.—*Doses*.  $\frac{1}{12}$ – $\frac{1}{6}$  grain (0.005–0.01–0.02 Gm.); 5% solut. for sweet feed; 10% solut. caustic.

**Sodium Diiodoparaphenolsulphonate**.—see **Solizodole-Sodium**

**Sodium Diiodosalicylate Merck** (35)  
 $2\text{NaC}_6\text{H}_4\text{I}_2\text{O}_3 + 5\text{H}_2\text{O}$ .—Wh. leaflets or need.—*Sol*. 50 W.—*Anal.*: Antipyr.; Antisept.—*Uses*: *Extern.*, parasitic skin dis.—*Dose*. In rheumat, 3–6 grains (0.2–0.36 Gm.) 1–4 t. p. d.

**Sodium Dimethylarsenate**.—see **Sodium Cacodylate**

**Sodium Dinitrocresolate Merck** (40)  
 $\text{NaC}_6\text{H}_3\text{N}_2\text{O}_6$ , or,  $\text{C}_6\text{H}_3\text{CH}_3\text{ONa}(\text{NO}_2)_2$ .—Orange-red powd.—*Sol*. W., A.—Antisept.—*Uses*: *Techn.*—*Caut.* Poison!

**Sodium Dinitrodioxyquinonate**.—see **Sodium Nitrilanite**

**Sodium Dioxide**.—see **Sodium Peroxide**

**Sodium Dithionate**.—see **Sodium Hyposulphate**

**Sodium Dithiosalicylate**.—see **Dithion**

**Sodium Divanadate Merck** (500)  
(Sodium Tetravanadate).— $\text{Na}_2\text{V}_4\text{O}_{11} + 9\text{H}_2\text{O}$ .—Orange-red cryst. *Solut.* 1:200,000 W. is yel.-low.—*Sol.*, v. sl. W.—*Uses*: *Techn.*, in manuf. inks & aniline black.—*Caut.* Keep well stop.

**Sodium Ethylate Merck**.—Dry (14)  
 $\text{C}_2\text{H}_5\text{ONa}$ .—Wh. or yellowish, hygros. powd.—*Sol*. W., A.—Escharotic.—*Uses*: In 1:3 solut. in absol. alcohol; solut. appl. w. glass rod. Chlorof. arrests action.

**do. Merck**.—Liquid.—*Ph. B.* (6)  
Cont. 18% of solid sodium ethylate ( $\text{NaC}_2\text{H}_5\text{O}$ ).—Colorless, syrupy liquid; turns brown on keeping.—*Sp. Gr.* 0.867 at 15° C.—Escharotic.—*Uses*: Warts, nevi, &c. The alcohol liberated by its decomp. coagulates the albuminous bodies exposed, & thus mitigates action.—Apply with glass rod, pure.—Chlorof. arrests action.

**do. Richardson-Merck** (10)  
(Caustic Alcohol).—Fr. absolute ethyl alc. at 10° C. by sodium.— $\text{C}_2\text{H}_5\text{ONa}$ .—Whitish, cryst., deliq. powd.—*Sol*. W., A.—Caustic, Escharotic.—*Uses*: *Extern.*, destroy warts & nevi. 33  $\frac{1}{3}$ % solut. in absol. alc. carefully applied w. glass rod. When a crust has formed, remove & apply anew. 1 in 4 of olive oil in psoriasis & o. skin dis.—Chlorof. stops the caustic action.—*Caut.* Keep in rubber-stp. bot.

**Sodium Ethylsulphate Merck** (2)  
(Sodium Sulphovinate).— $\text{NaC}_2\text{H}_5\text{SO}_4 + \text{H}_2\text{O}$ .—Wh., v. hygros. cryst.; cooling, arom. taste.—*Sol*. 0.7 W., A.—Cathartic.—*Uses*: Mild, pleas. remedy for constip.—*Dose* 1–8 dr. (4–30 Gm.).

**Sodium Ferricyanide Merck** (8)  
 $\text{Na}_3\text{Fe}(\text{CN})_6 + 2\text{H}_2\text{O}$ .—Ruby-red, deliq. cryst.—*Sol*. 5.3 coll. W.; 1.2 boil. W.—*Uses*: Chem.

**Sodium Ferrocyanide Merck**.—Pure (2)  
 $\text{Na}_4\text{Fe}(\text{CN})_6 + 12\text{H}_2\text{O}$ .—Yellow, transp., monoc. prisms.—*Sol*. W.—*Uses*: Chem.; also w. sod. thiosulphate in photogr. (Farmer's reducer).

**do. Merck**.—Crude (1)  
Yellow cryst.—*Uses*. *Techn.*, inst. of  $\text{K}_4\text{Fe}(\text{CN})_6$ .

**Sodium Fluobenzoate Merck** (110)  
 $\text{C}_6\text{H}_5\text{FCOONa}$ .—Wh., cryst. powd.—*Sol*. W.—Antisept.—*Uses*: Lupus & o. tuberculous processes, instead of sodium fluoride because free fr. injurious action of latter on stomach.—*Dose* 8 grains (0.5 Gm.) 3 t. p. d.

**Sodium Fluoride Merck**.—Pure (3)  
 $\text{NaF}$ .—Clear, lustr. cryst., or wh. powd.—*Sol*. 23 W.—Antispasmod.; Antipyr.; Antisept.—*Uses*: *Intern.*, epilepsy, malaria, ague, tuberculosis, skin dis.—*Extern.*, antisept. dress. for wounds & injuries. Does not attack nickel-plated instruments.—*Dose*  $\frac{1}{12}$ – $\frac{1}{6}$  grain (0.005–0.01 Gm.) in solut. w. sod. bicarbonate.—*Appl.*, for wounds, 0.5–10:1,000 solut.; mouthwash, & inject. in vaginitis, 0.5–1% solut.

**do. Merck**.—Purified, arsenic-free (2)  
Antiferment.; Antisept.—*Uses*: In alcohol stilleries, to prevent formation of injurious quant. of lactic & butyric acids during fermentation of the mash. Largely used in manuf. yeast by Effront's process. Also for purifying vats used in fermentation industries, & for disinfecting apparatus used in stilleries.

**Sodium Fluosilicate**.—see **Sodium Silicofluoride**

**Sodium Formate Merck**.—Pure, dry (2)  
 $\text{NaCHO}_2 + \text{H}_2\text{O}$ .—Wh., deliq., cryst. powd.—*Sol*. W., G.—Antisept.; Diur.; Tonic; Antituberc.—*Uses*: Hypoderm. in surgical tuberculosis.—*Techn.*, as powerful reducer.—*Dose*  $\frac{1}{6}$ –3 grains (0.01–0.2 Gm.) in solut., every 8 to 10 days; in pneumon.,  $\frac{1}{3}$ –4 grains (0.08–0.25 Gm.) every 2 hrs. in aqu. solut. or in infus. Adonis vernalis.

**Sodium Glycerinoborate Merck** (5)  
(Borax Glycerite).—Fr. 40 p. borax & 60 p. glycerin w. heat.—Transl., glassy, brittle mass; very hygroscopic.—*Sol*. W., A.—*Melt.* 150° C.—Antiseptic.

**Sodium Glycerinophosphate Merck**.—75% (5)  
 $\text{Na}_2\text{C}_3\text{H}_7\text{PO}_6 + \text{aq.}$ —Yellowish, viscid liq.—*Sol*. W. in ev. proportion; deposits a cryst. salt in the cold, but clears up on warming.—*Uses*: Deficient nerve nutrition, neurasthenia, Addison's dis.; phosphaturia, convalesce. fr. influenza, lumbago, &c.—*Dose* 4–10 grains (0.25–0.6 Gm.) 3–4 t. p. d.; in goiter, 20 grains (1.3 Gm.) 3 t. p. d.; inj., 3–4 grains (0.2–0.25 Gm.) daily, in physiological solut. sod. chloride.

*Note*.—This is the article best adapted for

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



use in all cases, because of its uniform strength & freedom from uncombined glycerin & acid salts.

**Sodium Glycerinophosphate Merck.—50%** (4)

do. Merck.—100%, powd. (12)

**Sodium Glycocholate Merck** (28)

Found in bile of man & of herbivora, & obtained fr. latter.— $\text{NaC}_{20}\text{H}_{35}\text{NO}_6$ .—Yellowish powd.—*Sol.* W., A.—*Cholag.*—*Uses:* Cholelithiasis, deficient biliary secret., &c.; capable of increasing flow of bile 100%.—*Dose* 60–75 grains (4–5 Gm.) p. d.—Acts also as a chemical vaccine for poisoning by snake venom.

**Sodium Gynocardate Merck** (50)

$\text{NaC}_{14}\text{H}_{22}\text{O}_2$ .—Yellowish powd.—*Sol.* W., A.—*Antisep.*; *Alter.*—*Uses:* Leprosy.—*Dose* 5–15 grains (0.3–1 Gm.) twice per day in gelatin capsules.

**Sodium Hippurate Merck** (35)

$\text{NaC}_8\text{H}_8\text{NO}_3$ .—Wh. powd.—*Sol.*, boiling W.—*Uses:* As of o. hippurates in dis. due to uric acid diathesis.—*Dose* 10 grains (0.6 Gm.).

*Sodium Hydrate.*—see **Sodium Hydroxide**

*Sodium Hydripyroantimoniate.*—see **Sodium Metantimonate**

*Sodium Hydrosulphate.* } —see **Sodium**  
*Sodium Hydrosulphide.* } **Sulphhydrate**

**Sodium Hydroxide Merck. Purified sticks, lumps, drops, powd., & flakes** (1)

(Sodium Hydrate; Caustic Soda; Soda).— $\text{NaOH} + \text{aq.}$ —Wh., deliq. flakes, plates or sticks; acrid, caustic taste.—*Sol.* 0.8 boil. W.; (abt. 1 W. at 25° C.; v. sol. A., U. S. P.).—Caustic (as London Paste = eq. parts lime & caustic soda); *Antacid.*—*Uses:* Pharm. & chem.—*Dose*  $\frac{1}{2}$ –1 grain (0.03–0.06 Gm.) freely diluted.—*Antid.* W., & then vinegar or lemon juice.—*Caut.* Keep well stoppered.

do. Merck.—Pure (Purified by Alcohol), sticks, lumps, & drops (1)

do. Merck.—Highest Purity, fr. Sodium (5)  
do.—Solution.—U. S. P.

(Solution Soda; Soda Lye).—5% of  $\text{NaOH}$ .—Clear, colorl. liq.; v. acrid, caustic taste; alkal. react.—*Sp. Gr.* 1.059 at 15° C. (1.056 at 25° C.—U. S. P.).—*Sol.* W., A.—*Antacid*; *Diur.*; *Antilithic.*—*Uses:* Serof., lepra, psoriasis, & o. skin dis.; lithiasis, cystitis, urethritis, & o. dis. of genurin. org.; also as reagent.—*Dose* 10–30  $\text{m}$  (0.6–2 Ce.).—*Antid.*, oils & mild acids.—*Incomp.*, fats, organic matter, amm. salts.

do.—31% Solution

$\text{NaOH} + \text{aq.}$ —Clear, sl'y yellow-tinged liq.—*Sp. Gr.* 1.34 = 37° B $\acute{e}$ .—Caustic; *Antacid*; *Diur.*, &c.—*Uses:* Cauterizing, & dil. to proper strength for same purposes as the official.—*Caut.* Keep well stoppered (rubber or paraffin).

**Sodium Hydroxide.—15% Solution**

*Sp. Gr.* 1.172 = 21° B $\acute{e}$ .—*Sol.* W., A.—*Uses*, &c.: As of U. S. P. solut., but must be reduced in strength.—*Caut.* Keep rubber stoppered.

do.—Crude (1)

Gray-white lumps.—*Abt.* 93–95%  $\text{NaOH}$ .—*Uses:* Techn., instead of  $\text{KOH}$ , because cheaper, in manuf. soap & organ. dyes, purifying petroleum, working up distillation products of turf & brown coal, manuf. water glass, mordants for wood, &c.

**Sodium Hydroxide Merck. — Reagent. — From Sodium** (6)

(Caustic Soda).— $\text{NaOH}$ .—Wh. pieces; cryst. fract.; 95–98%  $\text{NaOH}$ .—*Tests:* ( $\text{H}_2\text{SO}_4$ ) 3 Gm. + 50 Ce.  $\text{H}_2\text{O} + 15$  Ce.  $\text{HCl}$  (sp. gr. 1.124); boil; a lil solut.  $\text{BaCl}_2$ —no ppt. within 12 hrs.—(C) 1 Gm. + 20 Ce.  $\text{H}_2\text{O} + 10$  Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + few drops solut.  $\text{AgNO}_3$ —at most sl't opalesc. turb.—( $\text{HNO}_3$ ) a: 2 Gm. + 10 Ce.  $\text{H}_2\text{O} + 20$  Ce. dil.  $\text{H}_2\text{SO}_4$  + 1 drop 1:1000 solut. indigo + a granule  $\text{NaCl} + 10$  Ce. conc.  $\text{H}_2\text{SO}_4$ —blue color should not dissip. within 10 min.; b: 25 Gm. + 100 Ce.  $\text{H}_2\text{O} + 5$  Gm.  $\text{Zn}$ -dust + 5 Gm. powd.  $\text{Fe}$ ; let stand sev. hrs.; distil. off abt. 25 Ce.; collect distillate in receiver cont. 3–5 Ce. fifthnorm.  $\text{HCl} + 10$  Ce.  $\text{H}_2\text{O}$ ; titrate dist. w. fifthnorm.  $\text{KOH}$  (methyl orange indic.)—at most 0.2 Ce. fifthnorm.  $\text{HCl}$  should be req. to neutralize the  $\text{NH}_3$ .—(Si) 5 Gm. + 25 Ce.  $\text{H}_2\text{O} + 25$  Ce.  $\text{HCl}$  (sp. gr. 1.124); evap. in platin. dish to dryness on W.-bath; dry res.  $\frac{1}{2}$  hr. at abt. 120° C., then diss. in 10 Ce.  $\text{HCl}$  (sp. gr. 1.124) + 90 Ce.  $\text{H}_2\text{O}$ ; filter off any insol. res. & ignite—wt. should not exceed 0.0005 Gm.—(Al; Ca; Heavy Met.) 5 Gm. + 10 Ce.  $\text{H}_2\text{O}$ —solut. clear & colorl.; to solut. add 30 Ce. dil.  $\text{C}_2\text{H}_5\text{O}_2$  (sp. gr. 1.041) + 10 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96) + 55 Ce.  $\text{H}_2\text{O}$ ; heat on W.-bath till  $\text{NH}_3$  disappears; add 2–3 drops  $\text{NH}_4\text{OH}$  & let stand 12 hrs.—no ppt. or only v. sl't flocc. ppt.; if a ppt., collect, wash, & ignite—wt. not more than 0.0005 Gm. Make following tests with filtrate: a: to 50 Ce. add few Ce. solut.  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ —no ppt. within 2 hrs. (Ca); b: to 50 Ce. add few drops  $(\text{NH}_4)\text{HS}$ —no react.—*Uses:* In special analyses requiring great purity; volumetric solutns., synthesis, & ultimate & gas analysis.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

do. Merck.—Reagent.—Purif. by Alcohol (2)

Wh., v. hygrosc. sticks or pieces; cryst. fract.; 95–98%  $\text{NaOH}$ .—*Tests:* ( $\text{H}_2\text{SO}_4$ ) 3 Gm. + 50 Ce.  $\text{H}_2\text{O} + 15$  Ce.  $\text{HCl}$  (sp. gr. 1.124); boil; add solut.  $\text{BaCl}_2$ —not more than sl't turb., & liq. still transp. when observed through test-tube 2 Cm. in diam.—(C) 1 Gm. + 20 Ce.  $\text{H}_2\text{O} + 10$  Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + few drops solut.  $\text{AgNO}_3$ —sl't opalesc. but no ppt.—( $\text{HNO}_3$ ) as under sod. hydrox. fr. sodium.—(Si) 5 Gm. + 25 Ce.  $\text{H}_2\text{O} + 25$  Ce.  $\text{HCl}$  (sp. gr. 1.124); evap. in platin. dish to dryness

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



on W.-bath, dry res. on and-bath  $\frac{1}{2}$  hr. at abt.  $120^{\circ}$  C., then diss. in 10 Cc. HCl (sp. gr. 1.124) + 90 Cc. H<sub>2</sub>O, collect res., wash & ignite—wt. not more than 0.0025 Gm. —(M; Ca; Heavy Met.) 5 Gm. + 20 Cc. H<sub>2</sub>O—solut., clear & colorl.; add H<sub>2</sub>O to make 100 Cc., then add 30 Cc. dil. C<sub>2</sub>H<sub>5</sub>O<sub>2</sub> (sp. gr. 1.041) + 10 Cc. NH<sub>4</sub>OH (sp. gr. 0.96)—at most only sl't turb. within 5 min., but no flocc. ppt. (Al); also no immud. react. on add. solut. (NH<sub>4</sub>)<sub>2</sub>C<sub>2</sub>O<sub>4</sub> & (NH<sub>4</sub>)HS.—*Uses:* Volumetric soluts., gas analysis, &c.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Hydroxide Merck. — Reagent. — Purified (1**

Wh., v. hygrosc. pieces or sticks; cryst. fract.; 90–95% NaOH.—*Tests:* (HNO<sub>3</sub>) 2 Gm. + 10 Cc. H<sub>2</sub>O + 15 Cc. dil. H<sub>2</sub>SO<sub>4</sub> (sp. gr. 1.11) + 1 drop 1:1000 solut. indigo + a granule NaCl + 10 Cc. conc. H<sub>2</sub>SO<sub>4</sub>—blue color should not disapp. within 10 min.—(M; Ca; Heavy Met.) 2.5 Gm. + 10 Cc. H<sub>2</sub>O—solut., clear & colorl.; add H<sub>2</sub>O to make 100 Cc.; then add 15 Cc. dil. C<sub>2</sub>H<sub>5</sub>O<sub>2</sub> (sp. gr. 1.041) + 5 Cc. NH<sub>4</sub>OH (sp. gr. 0.96)—at most only sl't turb. within 5 min., but no flocc. ppt. (Al). Solut. should give no immud. turb. w. solut. (NH<sub>4</sub>)<sub>2</sub>C<sub>2</sub>O<sub>4</sub>; & w. (NH<sub>4</sub>)HS at most only sl't green color.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck. — Reagent. — Solution. — Sp. Gr. 1.30 (1**

Colorl. liq.; abt. 27% NaOH.—*Tests:* (HNO<sub>3</sub>) As detailed under sod. hydrox. fr. Na, using, however, 90 Gm. = 70 Cc. solut. NaOH sp. gr. 1.30 for the tests.—*Uses:* General precipitant.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck. — Reagent. — Solution. — Sp. Gr. 1.30. — Free fr. Nitrogen (1**

*Tests:* As detailed under sod. hydrox. purif. by alcob., using, however, 3.7 Gm. = 2.9 Cc. solut. inst. of 1 Gm. NaOH.—*Uses:* Determ. N.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck. — Reagent. — Solution. — Sp. Gr. 1.168–1.172 (1**

Clear, colorl. liq.; abt. 15% NaOH.—*Tests:* As detailed under sod. hydrox. purif. by alcob., using, however, 6.5 Gm. = 5.6 Cc. solut. instead of 1 Gm. NaOH.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by

D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Hydroxide with Lime Merck (1**

(Soda-lime).—Wh. granules (coarse, medium, or fine).—*Uses:* Elementary analysis for quant. determ. of nitrogen.

**do. Merck. — Fr. Iceland Spar (25**

(Soda-lime).—Gray granules.—*Uses:* Org. anal.

**Sodium Hydroxide with Lime Merck. — Reagent (2**

Wh., porous mass, finely or coarsely granulated.

*Tests:* (Excess. Carbonate) treat w. dil. H<sub>2</sub>SO<sub>4</sub>—no strong effervesc. —(N) a: ignite in test-tube—no NH<sub>3</sub> vapors (test w. moist litmus paper); b: 50 Cc. in fine powd. + 5 Gm. Zn-dust + 5 Gm. powd. Fe + 200 Cc. H<sub>2</sub>O; let stand 2–3 hrs.; distil. off abt. 25 Cc.; collect distillate in receiver cont. 2–3 Cc. fifthnorm. HCl + H<sub>2</sub>O; titrate distil. w. fifthnorm. KOH (methylorange indic.) not more than 0.2 Cc. fifthnorm. HCl should have been required to neutralize the NH<sub>3</sub>. —*Uses:* Chiefly determ. N.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck. — Reagent. — From Iceland Spar (40**

*Tests:* (Cl) 5 Gm. + 50 Cc. HNO<sub>3</sub> (sp. gr. 1.153); add 100 Cc. H<sub>2</sub>O + solut. AgNO<sub>3</sub>—at most only sl't opalesc. turb.—(P) 10 Gm. + 100 Cc. HNO<sub>3</sub> (sp. gr. 1.153) + 25 Cc. solut. ammon. molybd. in HNO<sub>3</sub>—no yellow ppt. within 2–3 hrs. at abt.  $40^{\circ}$  C.—(S) 5 Gm. in fine powd. + 2 Gm. NaNO<sub>3</sub>; ignite in silver cruc.; diss. res. in 50 Cc. H<sub>2</sub>O + 20 Cc. HCl (sp. gr. 1.124); filter; add to filtrate solut. BaCl<sub>2</sub>—no ppt. within 12 hrs.—*Uses:* Chiefly determ. S, P, & Cl in organic compds.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Hypophosphite Merck (2**

NaH<sub>2</sub>PO<sub>2</sub> + H<sub>2</sub>O.—Sm., colorl., pearly plates, or wh., gran. powd.; bitterish-sweet, saline taste.—*Sol.* 1 W., 25 A. at  $25^{\circ}$  C.; 0.12 boiling W., 1 boiling A.; sl. sol. absol. A.; insol. E.—*Tonic*; Alter.—*Uses:* Plith., scrof., defects in bony structure, & wasting dis.—*Dose* 10–30 grains (0.6–2 Gm.).—*Caut.* Liable to explode when heated. Keep in well-stp. bot.

**do. Merck. — Purified (2**

**do. Merck. — Highest Purity (8**

**Sodium Hyposulphate Merck (5**

(Sodium Dithionate).—Na<sub>2</sub>S<sub>2</sub>O<sub>6</sub> + 2H<sub>2</sub>O.—Large, transp., rhombic prisms; bitter taste.—*Sol.* W.; insol. A.

*Sodium Hyposulphite.*—see Sodium Thiosulphate

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Sodium "Ichthyolsulphonate."*—see **Ichthyol**

### Sodium

*Sodium Indigotinsulphonate.*—see **Indigo Carmine**

**Sodium Iodate Merck** (15)

$\text{NaIO}_3$ .—Wh. powd.—*Sol.* 40 W. at  $0^\circ \text{C}$ .; 10 hot W.; 2.9 boiling W.—*Uses:* Bronchial asthma, glandular swellings, neural. affect., hemoptysis, muscular rheum.—*Extern.*, trachoma, torpid ulcers, corneal infiltrations, & instead of potass. iodide & iodoform in 5-10% solut.—*Dose* 15 grains (1 Gm.) p. d. in pills; hypoderm. in acute & chron. muscular rheum.,  $\frac{3}{4}$ -1 $\frac{1}{2}$  grains (0.05-0.1 Gm.).—*Appl.*, as pencil in ulcers, trachoma, & corneal infiltrations, or in 1.5-3% solut. or 1.5% oint. For wounds, mixed w. boric acid (1:8).

**Sodium Iodide Merck** (5)

$\text{NaI}$ .—Wh., cryst. powd., or cubic cryst.; sl'y bitter taste.—*Sol.*, abt. 0.5 W., 3 A. at  $25^\circ \text{C}$ .; 0.33 boiling W., 1.4 boiling A.—*Alter.*; Antisyphil.; Sialag.—*Uses:* Rheum., pneum., tertiary syph., asthma, chronic bronch., serof., hepatic cirrhosis, angina pectoris, &c.; does not affect the heart as potass. iodide does.—*Doses:* 5-60 grains (0.3-4 Gm.) several t. p. d.; in angina pectoris, 15-25 grains (1-1.6 Gm.) p. d. for a period of 1-2 years.—*Incomp.*, alkaloidal salts, hydrated chloral, tartaric acid, calomel, silver nitrate, potass. chlorate, metallic salts, & acids generally.

do. **Merck.**—Highest Purity, Medicinal (5)

*Sodium Iridichloride.*—see **Iridium & Sodium Chloride**

**Sodium Kousseinate Merck** (225)

Sodium salt of Koussin.—Light-brown, amorphous powd.—*Sol.*, cold W., A.—Teniafuge.—*Dose* 15-60 grains (1-4 Gm.) in 4 divided doses given at intervals of  $\frac{1}{2}$  hr., & followed by a dose castor oil. Children, half the doses named.—Well adapted for use because read. solub.

**Sodium Lactate Merck** (5)

$\text{NaC}_2\text{H}_3\text{O}_2$ .—Thick, syrupy liq.—*Misc.* W., A.—Hypnotic.—*Uses:* Insomnia.—*Dose* 2-4 dr. (8-15 Gm.) in 2 fl. oz. (60 Cc.) water.—Action uncertain.

**Sodium Lactophosphate Merck** (4)

Crystalline, sm., round, wh. balls.—*Sol.* W.

*Sodium Lygossinate.*—see **Lygosine**

**Sodium Malate Merck** (50)

$\text{Na}_2\text{C}_4\text{H}_4\text{O}_6 + \frac{1}{2}\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W.

**Sodium Meconate Merck** (60)

Wh. to yellowish-wh., cryst. powd.—*Sol.*, eas. hot W.; diffie. cold W.; v. diffie. in strong A., but more read. in dil. A.

*Sodium Metaborate.*—see **Sodium Borate, Neutral**

**Sodium Metaborate Merck** (7)

(Normal Sodium Metaborate).— $\text{NaBO}_2 + 2\text{H}_2\text{O}$ .—By fusing borax w. sod. carbon, or caustic

soda.—Wh. masses, or transp., monoc. prisms.

—*Sol.* W.—See also Sodium Borate, Neutral.

**Sodium Metacresotate Merck** (7)

Wh. cryst.—*Sol.* W.

**Sodium Metantimonate Merck** (10)

(Sodium Hydropyroantimonate).— $\text{Na}_2\text{H}_2\text{Sb}_2\text{O}_7$ .—Wh., gran. cryst.—*Sol.*, v. sl. in hot W.

*Sodium Metaoxycyanocinnamate.*—see **Zimphen**

**Sodium Metaphosphate Merck** (5)

$\text{NaPO}_3$ .—Glassy, clear, colorl., transp. sticks.—*Insol.* W.

**Sodium Metavanadate Merck** (30)

$\text{NaVO}_3$ .—Greenish-wh., alm. tastel., cryst. powd.—*Sol.*, hot W.—*Alter.*; Anticachectic.—*Uses:* As tonic to nervous system in diseases due to impaired metabolism & deficient oxidation processes; succedaneum for arsenic in anemia, chlorosis, chron. rheum., diabetes, neurasth., & tuberculosis.—*Dose*  $\frac{1}{10}$ - $\frac{1}{8}$  grain (0.001-0.008 Gm.) bef. meals, 2-3 t. p. d. during 2 or 3 days per week.

**Sodium Methylarsenate Merck** (25)

(Disodium Methylarsenate; Monomethyldisodium Arsenate).— $\text{CH}_3\text{AsO}_3\text{Na}_2 + 5\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.*, eas. W.; sl. A.; *insol.* E., benzin, petroleum ether, & oils.—*Melt.*  $130$ - $140^\circ \text{C}$ .—Very active arsenical.—*Uses:* Instead of inorganic arsenical salts & cacodylates in tuberculosis, emphysema, chron. bronchitis, asthma, grip, chorea, vomiting of pregnancy, carcinoma, syphilis, skin diseases, & malaria.—*Dose*  $\frac{1}{2}$ - $1\frac{1}{2}$  grains (0.03-0.1 Gm.) per day, hypoderm. or per os in aqu. solut.; in malaria,  $1$ - $1\frac{1}{2}$  grains (0.06-0.1 Gm.) p. d.

**Sodium Methylate Merck** (25)

Fr. metallic sodium & methyl alcohol.— $\text{CH}_3\text{ONa} + 2\text{CH}_3\text{OH}$ .—Wh. powd.—*Sol.* W., A.

**Sodium Methylsulphate Merck.**—Cryst. (5)

$\text{NaCH}_3\text{SO}_4 + \text{H}_2\text{O}$ .—Colorl., hygros. cryst.—*Sol.* W., A.

*Sodium Methyltrihydroxyquinoline Carbonate.*—see **Thermifugin**

*Sodium Molybdophosphate.*—see **Sodium Phosphomolybdate**

**Sodium Molybdate Merck** (10)

$\text{Na}_2\text{MoO}_4 + 2\text{H}_2\text{O}$ .—Sm. tablets; mother-of-pearl luster.—*Sol.* W.—*Uses:* Reagent.

*Sodium Monosulphide.*—see **Sodium Sulphide**

*Sodium Naphthionate.*—see **Sodium Naphtylamine-sulphonate**

*Sodium-Naphthol.* } —see **Microcidin**  
*Betanaphtholate.* }

**Sodium Naphtholsulphonate (Alpha-) Merck** (15)

(Basic Sodium Betanaphtholalphasulphonate).— $\text{NaC}_{10}\text{H}_7\text{SO}_4$ , or  $\text{C}_{10}\text{H}_6\text{OH.SO}_3\text{Na}$ .—Wh. leaflets; silvery luster.—*Sol.* W., A.

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Sodium Naphtholsulphonate (Beta-) Merck** (15)  
(Beta-NaSO<sub>3</sub> or Alpha-naphtholsulphonate).  
—NaC<sub>10</sub>H<sub>7</sub>SO<sub>3</sub> or C<sub>10</sub>H<sub>7</sub>OH.SO<sub>3</sub>Na.—Wh., lu-  
trous leaflets. —*Sol.* W.

**Sodium Naphthylaminesulphonate (Alpha-) Merck.**  
Cryst. (2)

(Sodium Naphionate). —NaC<sub>10</sub>H<sub>7</sub>NH<sub>2</sub>.SO<sub>3</sub>—  
4H<sub>2</sub>O.—Monoc. prisms. —*Sol.* W.—*Uses.* With  
betanaphthol as exceedingly sensitive reagent  
for nitrous acid (Riegler's test).

**Sodium Nitranilate Merck** (175)  
(Sodium Dinitrodioxyquinonate).—NaC<sub>6</sub>H<sub>3</sub>N<sub>2</sub>O<sub>6</sub>,  
or, C<sub>6</sub>H<sub>3</sub>N<sub>2</sub>O<sub>6</sub>.Na<sub>2</sub>—Reddish-brown powd.  
—*Sol.* W.

**Sodium Nitrate Merck.**—Highest Purity, cryst. (1)  
(Cubic, Chili, or Soda, Niter or Saltpeter). —  
NaNO<sub>3</sub>.—Color: cryst.; saline, sl'y bitter taste.  
—*Sol.* 1.1 W., 100 A. at 25° C.; 0.6 boil. W.;  
40 boil. A. (U. S. P.)—*Melt.* 312° C.—*Refrig.*  
Antisep.; Diur.—*Uses.* Inflam. condit.  
of intest., dysent., &c.; less active than KNO<sub>3</sub>.  
—*Extern.* rheumatism, 33 1/3% aq. solut.—*Dose*  
10-60 grains (0.6-4 Gm.).

do. Merck.—Highest Purity, powder (1)

do. Merck.—Highest Purity, fused, pow-  
der (5)

do. Merck.—Purified, cryst. (1)

Color. cryst.

do. Merck.—Fused, sticks (3)

do. Merck.—Commercial (1)

*Uses:* Techn., in chemical manuf. industries,  
manuf. sulphuric & nitric acids, potash salt-  
peter; also as manure, oxidizer & flux in metal-  
lurgy, manuf. glass, &c.

**Sodium Nitrate Merck.—Reagent** (3)  
NaNO<sub>3</sub>.—Color: transp., rhombohedr. cryst.  
—*Sol.* 1.2 W.; 50 A.—Aq. solut. neutral to  
litmus paper.—*Tests:* (H<sub>2</sub>SO<sub>4</sub>) 3 Gm.+60 Ce.  
H<sub>2</sub>O+1 Ce. HCl (sp. gr. 1.124)+solut. BaCl<sub>2</sub>—  
no ppt. within 12 hrs.—(C) 1 Gm.+20 Ce. H<sub>2</sub>O  
+few drops HNO<sub>3</sub> (sp. gr. 1.153)+solut. AgNO<sub>3</sub>  
—no turb.—(HClO<sub>4</sub>) gently ignite 1 Gm.;  
diss. res. in 20 Ce. H<sub>2</sub>O; add 1 Ce. HNO<sub>3</sub> (sp. gr.  
1.153)+solut. AgNO<sub>3</sub>—no turb.—(Ca; Heavy  
Met.) a: 3 Gm.+50 Ce. H<sub>2</sub>O+aq. H<sub>2</sub>S—no  
react.; b: 3 Gm.+50 Ce. H<sub>2</sub>O+NH<sub>4</sub>OH or solut.  
(NH<sub>4</sub>)<sub>2</sub>C<sub>2</sub>O<sub>4</sub>—no react. in either case.—(Fe) 20 Ce.  
1:20 solut.+1 Ce. HCl (sp. gr. 1.124)+solut.  
KSCN—no red color.—(HNO<sub>3</sub>) 1 Gm.+20 Ce.  
H<sub>2</sub>O+1 Ce. dil. H<sub>2</sub>SO<sub>4</sub>+1 Ce. 1:200 solut. meta-  
phenylenediamine hydrochlor. —no yellow or yel-  
lowish-brown color.—(HIO<sub>3</sub>; HNO<sub>3</sub>) 5 Ce. 1:20  
solut.+3-4 drops dil. H<sub>2</sub>SO<sub>4</sub>+solut. zinc-iodide-  
starch—no immed. blue color.—(K) a: observe  
flame color through cobalt glass—no red color, or  
at most only transient; b: 3 Gm.+6 Ce. H<sub>2</sub>O;  
heat; filter; to 3 Ce. filtrate add 1-2 drops solut.  
cobalt & sol. nitrite in C<sub>2</sub>H<sub>5</sub>O<sub>2</sub>—no turb.; let  
stand 2 hrs. at abt. 50° C.—no yellow ppt.—  
*Uses:* Oxidizer in determ. Cl & S in organic sub-

stances; destroying organic matter in forensic  
analysis; detect Cr & Mn.

*Note.*—For complete tests see "Chemical  
Reagents: Their Purity & Tests," published by  
D. Van Nostrand Co., New York. This reagent  
conforms to the standard therein given.

**Sodium Nitrite Merck.**—Highest Purity, sticks (2)  
NaNO<sub>2</sub>.—Wh., opaque sticks, or color. cryst.  
—*Sol.* 1.4 W. at 25° C.; v. sol. boil. W.; sl. A.  
(U. S. P.)—Diaph.; Antispas.; Diur.—*Uses:*  
Angina pectoris, dropsy, suppression of urine,  
& var. dis. of gen.-urin. org.; also chem.—  
*Dose* 1-3 grains (0.06-0.2 Gm.) 3-4 t. p. d.,  
given v. cautiously.—Hypoderm., in tabs  
dorsalis, 15 M (1 Ce.) of a 1-6% solut.—*Antid.*  
naphthionic acid, sulphamic acid.—*Incomp.*  
acetanilide, antipyrine, chlorates, chromates,  
gold chloride, hypophosphites, iodides, mercury  
salts, permanganates, sulphites, tannic acid,  
vegetable astringent decoctions, infusions, or  
tinctures.—*Caution.* Keep well stoppered.

do. Merck.—Commercial, abt. 94% (1)  
Wh., cryst. powd.—*Uses:* Techn., in manuf. of  
diazo dyes.

**Sodium Nitrite Merck.—Reagent.—Sticks** (3)  
NaNO<sub>2</sub>.—Wh., or v. slightly yellowish, tough  
sticks; 98-99% NaNO<sub>2</sub>.—*Sol.*, eas. W.—Aq.  
solut. sl'tly alk. to litmus paper.—*Tests:* (C)  
1 Gm.+20 Ce. H<sub>2</sub>O+5 Ce. HNO<sub>3</sub> (sp. gr. 1.124)  
+solut. AgNO<sub>3</sub>—not more than sl't opalesc.  
turb.—(H<sub>2</sub>SO<sub>4</sub>) 20 Ce. 1:20 solut.+5 Ce. HNO<sub>3</sub>+  
solut. Ba(NO<sub>3</sub>)<sub>2</sub>—no turb.—(K) observe flame  
color through cobalt glass—no red color, or at  
most only transient.—(Heavy Met.) 20 Ce. 1:20  
solut.+few drops solut. (NH<sub>4</sub>)HS—no react.—  
*Uses:* Organic synthesis; identifying antipyrine;  
prepar. nitric oxide.

*Note.*—For complete tests see "Chemical  
Reagents: Their Purity & Tests," published by  
D. Van Nostrand Co., New York. This reagent  
conforms to the standard therein given.

do. Merck.—Reagent.—Free from Potas-  
sium (5)  
*Test:* (K) 10 Gm.+20 Ce. H<sub>2</sub>O+2 Ce. dil. C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>  
+solut. 5 Gm. cryst. cobalt acetate in 12 Ce.  
H<sub>2</sub>O+25 Ce. H<sub>2</sub>O; let stand 24 hrs. at 40-50° C.  
—no yellow ppt. Other tests as preceding.—  
*Uses:* Prepar. sodium cobaltic nitrite; otherwise  
as of preceding.

*Note.*—For complete tests see "Chemical  
Reagents: Their Purity & Tests," published by  
D. Van Nostrand Co., New York. This reagent  
conforms to the standard therein given.

**Sodium Nitromolybdate Merck.**—Pure, cryst. (100)  
Wh., cryst. powd.—*Sol.* W.

**Sodium Nitronaphthalenesulphonate (Alpha-) Merck** (25)  
NaC<sub>10</sub>H<sub>6</sub>(NO<sub>2</sub>)SO<sub>3</sub>+1/2 H<sub>2</sub>O.—Brownish-yellow  
powd.—*Sol.* W.

*Sodium Nitroprussiate.*—see **Sodium Nitroprus-**  
**sionide**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Sodium Nitroprusside Merck.**—Cryst. (10  
(Sodium Nitroprussiate).— $\text{Na}_2\text{Fe}(\text{CN})_5(\text{NO}) + 2\text{H}_2\text{O}$ .—Ruby-red, transp. cryst.—*Sol.* 2.5 W. at 15° C.—*Uses:* Testing silk for admixed animal hair, & determining intensity of light (Roussin's photometer).

**Sodium Nitroprusside Merck.**—Reagent (25  
 $\text{Na}_2\text{Fe}(\text{CN})_5(\text{NO}) + 2\text{H}_2\text{O}$ .—Ruby-red, transp. cryst.—*Sol.* 2.5 W.; *A.*—*Test:* ( $\text{H}_2\text{SO}_4$ ) 1 Gm. + 50 Cc.  $\text{H}_2\text{O}$  + 1 Cc.  $\text{HCl}$  (sp. gr. 1.124) + solut.  $\text{BaCl}_2$ —no turb.—*Uses:* Detect. sulphides, caustic alkalies, alkaline earths, ketones, cystin, creatinine; also preparing copper nitroprusside (Heppes's reagent for oil turpentine in oxygen-containing volat. oils).

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Nucleinate Merck** (75  
Fr. yeast nuclein.—Whitish powd.—*Sol.*, in W. for the greater part.—*Tonic*; *Antituberc.*—*Uses:* As of organo-therapeutic extracts generally, hypoderm., to promote nutrition, & favorably influence the nervous system.—*Dose* 15  $\text{m}$  (1 Cc.) of 5% solut. hypoderm. p. d.

**Sodium Oenanthate Merck** (75  
Sodium salt of normal heptylic acid.— $\text{CH}_3(\text{CH}_2)_5\text{COONa}$ .—Wh., cryst. powd. or leaflets.—*Sol.* W., *A.*

**Sodium Oleate Merck** (3  
 $\text{NaC}_{18}\text{H}_{33}\text{O}_2$ .—Yellow, fatty granules.—*Sol.* W., *A.*

**Sodium Oleate (Acid) Merck** (3  
Contains  $\text{NaC}_{18}\text{H}_{33}\text{O}_2$ , w. excess of oleic acid.—Yellow, fatty granules.—*Sol.* *A.*, *W.*—*Uses:* Biliary lithiasis; also pharm.

**Sodium Orthoamidobenzoate.**—see **Sodium Anthranilate**

**Sodium Orthocresotate Merck** (7  
Reddish-wh. powd., or gran. mass.—*Sol.* *W.*

**do. Merck.**—Highest Purity (12

**Sodium Orthodinitrocresylate.**—see **Antinonnin**

**Sodium Orthosulphaminobenzoate.**—see **Sodium Benzoylsulphonate**

**Sodium Orthovanadate.**—see **Sodium Vanadate**

**Sodium Oxalate Merck.**—Highest Purity (2  
 $\text{Na}_2\text{C}_2\text{O}_4$ .—Wh. powd.—*Sol.* 33.3 W. at 15° C.

**do. Merck.**—Pure (1  
Wh. powd.

**Sodium Oxalate Merck.**—Reagent.—According to Sörensen (7

$\text{Na}_2\text{C}_2\text{O}_4$ .—Wh., cryst. powd.—*Sol.* 31 cold, 16 boil., *W.*—100% pure.—*Tests:* (*Hygrosc. Moisture*) dry 10 Gm. in water-drying-oven for 24

hrs.—loss of wt. not more than 0.001 Gm.—( $\text{Na}_2\text{CO}_3$ ; *Sod. Binoxal.*) 250 Cc.  $\text{H}_2\text{O}$  + 10 drops solut. phenolphthalein (0.5 Gm. + 50 Cc. *W.* + 50 Cc. *A.*); evap. in Jena flask to 180 Cc. while passing in current of  $\text{CO}_2$ -free air; cool; add 5 Gm.  $\text{Na}_2\text{C}_2\text{O}_4$ ; shake cautiously while passing in pure air—solut., if red, should not require more than 4 drops decinorm. acid to render it colorl.; if colorl., it must acquire a distinct red color on adding at most 2 drops decinorm.  $\text{KOH}$ .—(*Cl*;  $\text{H}_2\text{SO}_4$ ) decomp. 10 Gm. in platin. cruc. over alcohol flame (illum. gas contains S); diss. carbonate formed in  $\text{HNO}_3$  (sp. gr. 1.153); filter off fr. carbon; *a*: to half the filtrate add solut.  $\text{AgNO}_3$ —no turb.; *b*: to other half add solut.  $\text{Ba}(\text{NO}_3)_2$ —no turb.—(*Fe*; *K*) ignite 10 Gm. in platin. cruc. w. blast lamp till all carbon burnt; treat res. w. warm  $\text{H}_2\text{O}$  in platin. dish—compl. solub., or at most scarcely vghble trace of  $\text{Fe}_2\text{O}_3$ ; filter; add excess  $\text{HCl}$  (free fr.  $\text{Fe}$ ); evap. in platin. dish on *W.*-bath; dry res. 2 hrs. in drying-closet at 120° C.—*res.* must afford clear solut. w.  $\text{H}_2\text{O}$ . Treat solut. *w.*: *a*: solut.  $\text{KSCN}$ —only v. faint react. (*Fe*); *b*: solut. *sod.* & cobalt nitrite—no react. (*K*).—(*Organ. Impur.*) 1 Gm. + 10 Cc. conc.  $\text{H}_2\text{SO}_4$ ; heat in test-tube, at first gently while gas evolvs., then strongly till  $\text{SO}_3$  vapors evolvs.; cool; compare color with that of 10 Cc.  $\text{H}_2\text{SO}_4$  similarly treated but without add. of  $\text{Na}_2\text{C}_2\text{O}_4$ —only v. faint brownish tinge should be imparted by the  $\text{Na}_2\text{C}_2\text{O}_4$  to the  $\text{H}_2\text{SO}_4$ .—*Uses:* Starting material for prepar. volumetric solutions.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Para-amidobenzenesulphonate.**—see **Sodium Sulphanilate**

**Sodium Paracresotate Merck** (15  
 $\text{NaC}_8\text{H}_7\text{O}_3$ , or,  $\text{C}_6\text{H}_3\text{CH}_3\text{OH.COONa}$ .—Fine, microcryst. powd.; bitter taste.—*Sol.*, warm *W.*—*Antipyret.*; *Antisep.*; *Analg.*—*Uses:* Acute gastric catarrh, acute rheum., pneum., typhoid fever, &c.—*Dose* 1–20 grains (0.06–1.3 Gm.); 6–70 grains (0.36–4.6 Gm.) p. day, accord. to age, in aqu. solut.

**Sodium Paradiethylamidoazobenzenesulphonate.**—see **Ethyl Orange**

**Sodium Parasulphocarbolate.**—see **Sodium Phenylsulphonate, Para-**

**Sodium Perborate Merck** (5

$\text{NaBO}_3 + 4\text{H}_2\text{O}$ .—Wh. cryst.; abt. 10% active O.—*Sol.*, abt. 40 W. at 20° C. The aqu. solut. is sl'tly alk.; dil. acids liberate  $\text{H}_2\text{O}_2$ ; conc.  $\text{H}_2\text{SO}_4$  decomp. it w. formation of ozone; when heated to above 60° C. oxygen is evolved; decomposed also by catalyzers, ferments, animal tissues, &c.—*Antisep.*; *Deodor.*; *Bactericide.*—*Uses:* Wounds, purul. sores, varicose ulcers; also in toilet preparations & techn. in bleaching & disinfecting.—*Appl.*, in powd. or solut.

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Sodium Perchlorate Merck** (5)

$\text{NaClO}_4$ .—Colorl. deliq. cryst.—*Sol.* A, W.—*Uses.* Techn., in explosive.

**Sodium Permanganate Merck.—Pure** (8)

$\text{NaMnO}_4$ .—Reddish-black cryst.—*Sol.* W.—*Uses.* As antitdote in poisoning by morphine, phosphorus, & curate. Stomach is washed w. a 0.2% aq. solut., & 1 pint (approx.  $\frac{1}{2}$  liter) of the solut. drunk.

**do. Merck** (1)

Black, gran. powd.—*Sol.* W.—*Uses.* Techn., as oxidizer, & instead of potass. permanganate, particularly recommended for destroying *Cidium Tuckeri*.

**Sodium Peroxide** (8)

(Sodium Dioxide or Superoxide).—Fr. melted sol. w. dry air, followed by ignition in oxygen (Harcourt).— $\text{Na}_2\text{O}_2$ .—Wh. powd.; yellowish w. heat.—*Sol.* W., w. develop. of great heat, formation of caustic soda, & evolution of  $\text{H}_2\text{O}_2$ .—Exceedingly active oxidizer.—*Uses.* Techn., in 40-45% aq. solut. for bleaching discolored teeth w. dead pulp; sod. peroxide soap (Unna) used to remove indurated comedones. In chem. anal. for separating iron fr. aluminum, decomp. chromium ores, bleach. animal & veget. fibers & tissues (wool, silk, hair, bristles, feathers, bones, ivory, wood, fats, wax, sponges, coral, &c.), & rendering air charged w.  $\text{CO}_2$  respirable.—*Caut.* Liable to cause ignition on contact w. alc. or o. inflam. liq. mixed with W.

**Sodium Peroxide Merck.—Reagent** (8)

(Sodium Superoxide).— $\text{Na}_2\text{O}_2$ .—Light-yellow powd.; at least 95%  $\text{Na}_2\text{O}_2$ .—*Sol.* eas. W. w. copious evol. of O & great develop. of heat.—On cautiously add. to cooled, dil. min. acid,  $\text{H}_2\text{O}_2$  results.—*Tests:* ( $\text{H}_2\text{SO}_4$ ) add 5 Gm. in small quant. to 25 Ce.  $\text{HCl}$  (sp. gr. 1.121) + 100 Ce.  $\text{H}_2\text{O}$ ; add solut.  $\text{BaCl}_2$  to clear liq. — no ppt. within 12 hrs.—(*Halogens*) add 3 Gm. in sm. quant. to 20 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + 100 Ce.  $\text{H}_2\text{O}$ ; to clear liq. add solut.  $\text{AgNO}_3$  — at most only sl't opalesc. turb.—( $\text{H}_2\text{PO}_4$ ) add 2.5 Gm. in sm. quant. to 20 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + 100 Ce.  $\text{H}_2\text{O}$ ; add 25 Ce. solut. ammon. molybd. in  $\text{HNO}_3$ ; heat to 30–40° C. — no yellow ppt. within 2 hrs.—(N) v. cautiously mix 1 Gm. + 0.2 Gm. grape sugar in capacious nickel cruc.; deflagrate by gently heat. bottom of cruc.; cool; diss. res. in 5 Ce.  $\text{H}_2\text{O}$ ; add 10 Ce. dil.  $\text{H}_2\text{SO}_4$ ; overlay few Ce. of solut. on 5 Ce. solut. diphenylamine — no blue color at contact of liquids.—(*Heavy Met.*) cautiously add 5 Gm. to 100 Ce.  $\text{H}_2\text{O}$  — perf. clear & alm. colorl. solut.; a: to 40 Ce. of the solut. add 10 Ce.  $\text{HCl}$  (sp. gr. 1.121) + aq.  $\text{H}_2\text{S}$  — no react.; b: to 10 Ce. solut. add  $(\text{NH}_4)\text{HS}$  — no ppt., & no brown or green color.—*Uses:* Powerful oxidizer, partie. for S, N, P, & their compds.; destroying organic matter; efficient flux in diffie. fusions.

*Note.*—For complete tests see "Chemical Re-

agents: Their Purities & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Persulphate Merck** (4)

$\text{Na}_2\text{S}_2\text{O}_8$ .—Wh. cryst. powd.—*Sol.* W.—Strong bleacher & antisept. like the potassium salt (*q. v.*).—*Extern.* Euphrate. — *Dose:* 3 grains (0.2 Gm.) in water, once daily, 1 hr. bef. meals.—Also used in photography.

**Sodium Phenate Merck.—Dry** (4)

(Sodium Carbolate).— $\text{NaC}_6\text{H}_4\text{O}$ .—Wh., deliq. sticks of radiated cryst.—*Sol.* W.—Antiseptic.—*Uses:* As an intern. antisept. in diarr. dysent., typhoid fever, &c.—*Extern.* like carbolic acid, in bandages, in aq. solut., or w. linseed oil 1:5-10.—*Dose:* 2-10 grains (0.12-0.6 Gm.).—*Caut.* Keep well stoppered.

**Sodium Phenolphthaleinate Merck** (50)

$\text{Na}_2\text{C}_{20}\text{H}_{12}\text{O}_4$ .—Red, syrupy mass.—*Sol.* W.

**Sodium Phenolsulphonate Merck. — Highest Purity, Medicinal** (2)

(Sodium Paraphenolsulphonate, or Sulphocarbolate).— $\text{C}_6\text{H}_4\text{OHSO}_2\text{ONa} + 2\text{H}_2\text{O}$ .—Clear, colorl. cryst.; sl'y bitter taste.—*Sol.*, abt. 6 W., & 150 A., G. at 15° C.; (1.8 W., 130 A. at 25° C.; 0.7 boil. W., 10 boil. A., U. S. P.).—Antiseptic.—*Uses:* Intern., dyspep., plith., cholera, typhoid fever, flatulence, dysent., &c.—*Extern.*, gonorr., as an inj.—*Dose:* 8-30 grains (0.5-2 Gm.).

**do. Merck** (1)

Reddish cryst.—*Sol.* W., A.—*Uses:* Disinf.

**Sodium Phenonacetate.—see Guaiacetin**

**Sodium Phenylpropiolate.—25% Solution**

$\text{C}_9\text{H}_5\text{O}_2\text{Na} + \text{aq.}$ , or,  $\text{C}_9\text{H}_5\text{C}(\text{C}(\text{COONa}) + \text{aq.}$ —Clear, neutral or sl. acid liq.; sl. pungent taste.—Antitubercular.—*Uses:* Laryngeal & pulmonary tuberc.—*Dose:* Abt. 6 fl. oz. (abt. 200 Ce.) of a 1, 2, & 3% solut. the first, second, & third week respectively, inhaled twice daily.—*Caut.* Keep fr. light.

**Sodium Phosphate Merck. — Dibasic. — Pure, granular** (1)

(Disodium Orthophosphate).—*Cryst.*,  $\text{Na}_2\text{HPO}_4 + 12\text{H}_2\text{O}$ ; *dried* (exsiccated)  $\text{Na}_2\text{HPO}_4$ .—Colorl., transl., monoc. prisms, or, wh., gran. powd.; cooling, saline taste.—*Sol.* (cryst.), 1.5 boiling W.; abt. 5.5 W. at 25° C.; insol. A.—*Melt.* (cryst.), 40° C. — Loses 5 mol. water of cryst. (25.1%) by effloresc.—*Cath.*; Antilithic.—*Uses:* Stimulant of biliary secretion, as mild lax., in chron. rheum., & in calculi of bladder.—*Doses:* (*Cryst.*, 5-10 grains (0.3-2.6 Gm.); as laxative,  $\frac{1}{2}$ -1 oz. (15-30 Gm.).—*Dried*, abt. half the foregoing.—*Incomp.*, alkaloids, antipyrine, carbolic acid, hydrated chloral, lead acetate, pyrocatechin, pyrogallol, resorcinol, salicylic acid, sod-

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



ium salicylate.—*Caut.* Keep in well-stoppered bottles; the cryst. lose water of cryst. on expos.

*Note.*—This unusually desirable product should always be used for medicinal purposes because of its ready solubility & freedom from arsenic.

**Sodium Phosphate Merck.**—Twice purified, cryst. & dried (exsiccated) (1)

Colorl., transl. cryst., or wh. powd.—*Sol.* W.

do. Merck.—Highest Purity, Medicinal, cryst. & dried (1)

do.—Effervescent.—*U. S. P.*

Mixt. 200 exsicc. sod. phosphate, 477 sod bicarb., 252 citric acid, & 162 tartaric acid.—*Lax.*—*Dose* 1–4 dr. (4–15 Gm.).

**Sodium Phosphate Merck.**—Reagent.—Cryst. (3

$\text{Na}_2\text{HPO}_4 + 12\text{H}_2\text{O}$ .—Colorl., transp. cryst.; effloresc. in dry air.—*Sol.* 6 W.—*Aqu.* solut. alkal. to litmus paper.—*Tests:* ( $\text{H}_2\text{CO}_3$ ;  $\text{H}_2\text{SO}_4$ ) 20 Ce. 1:20 solut. + 1 Ce.  $\text{HCl}$  (sp. gr. 1.124) — no effervesc.; add solut.  $\text{BaCl}_2$  — no turb. within 3 hrs.—(*C*) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 2 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + solut.  $\text{AgNO}_3$  — at most only v. sl't opalesc. turb.—( $\text{HNO}_3$ ) 2 Gm. + 10 Ce.  $\text{H}_2\text{O}$  + 1 drop 1:1000 solut. indigo + a granule  $\text{NaCl}$  + 10 Ce. conc.  $\text{H}_2\text{SO}_4$  — blue color should not disapp. within 10 min.—(*Heavy Met.*) 2 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + 1 Ce.  $\text{HCl}$  + aqu.  $\text{H}_2\text{S}$  — no react.; add 5 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96) + few drops ( $\text{NH}_4\text{HS}$  — no ppt. or green color.—(*As*) 2 Gm. + 50 Ce.  $\text{H}_2\text{O}$ ; introduce in sm. quant. into Marsh appar. started w. 10 Gm. As-free Zn & dil. (1:5)  $\text{H}_2\text{SO}_4$  — no deposit visible in reduct. tube within 1 hr.—(*K*) observe flame color through cobalt glass — no red, or at most only transient, color.—*Uses:* Standardizing uranium soluts.; detect. alkaline earths & Mg; determ. Mg; recovering molybdic acid.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Phosphate, Acid.**—see Sodium Phosphate, Monobasic

**Sodium Phosphate Merck.**—Monobasic.—Pure (3

(Sodium Biphosphate; Acid Sodium Phosphate; Monosodium Orthophosphate).— $\text{NaH}_2\text{PO}_4 + \text{H}_2\text{O}$ .—Large, transp. cryst.; acid react.—*Sol.* W.

**Sodium Phosphate Merck.**—Tribasic.—Highest Purity (3

(Normal Sodium, or Trisodic, Orthophosphate).— $\text{Na}_3\text{PO}_4 + 12\text{H}_2\text{O}$ .—Six-sided, colorl. cryst.—*Sol.* 5.1 W. at 15.5° C.

do. Merck.—Commercial (1)

Clear, colorl. cryst.—*Uses:* Techn.

**Sodium Phosphite Merck** (8)

$\text{Na}_2\text{HPO}_3 + 5\text{H}_2\text{O}$ .—Wh., cryst. powd.—*Sol.* W.

**Sodium Phosphomolybdate Merck** (8)

(Sodium Molybdophosphate).— $\text{Na}_3\text{PO}_4 \cdot 10\text{MoO}_4$ .—Yellowish cryst.—*Sol.* W.—*Uses:* Reag. for alkaloids, & in neuromicroscopy.

**Sodium Phosphotungstate Merck** (8)

(Sodium Phosphowolframate).— $2\text{Na}_2\text{O} \cdot \text{P}_2\text{O}_5 \cdot 12\text{WO}_3 + 18\text{H}_2\text{O}$ .—Wh., gran. powd.—*Sol.* W.—*Uses:* Reag. for alkaloids.

**Sodium Phosphovanadate Merck** (250)

$4\text{P}_2\text{O}_5 \cdot 6\text{V}_2\text{O}_5 \cdot 3\text{Na}_2\text{O} + 21\text{H}_2\text{O}$ .—Yellow, cryst. powd.—*Sol.* W.

**Sodium Phosphowolframate.**—see Sodium Phosphotungstate

**Sodium Picrocarmine.**—see Gedölst's Picrocarmine-Sodium

**Sodium Platinichloride.**—see Platinum & Sodium Chloride, Platinic

**Sodium Platinochloride.**—see Platinum & Sodium Chloride, Platinous

**Sodium Platinocyanide.**—see Platinum & Sodium Cyanide

**Sodium Plumbate Merck** (2)

$\text{Na}_2\text{PbO}_3 + 3\text{H}_2\text{O}$ .—Yellow, amorph. masses, decomp. by W. w. separation of lead peroxide.—*Uses:* Techn.

**Sodium Propionate Merck.**—Pure (15)

$\text{NaC}_2\text{H}_5\text{O}_2$ .—Wh., gran. powd.—*Sol.* W., A.

**Sodium Propylsulphate Merck** (35)

$\text{NaC}_3\text{H}_7\text{SO}_4$ .—Wh. cryst.—*Sol.* W.

**Sodium Pyroantimonate**

(Sodium Antimonate).— $2\text{NaSbO}_3 + 7\text{H}_2\text{O}$ .—Wh., gran. cryst.—*Sol.*, sl. W.

**Sodium Pyroborate.**—see Sodium Borate

**Sodium Pyrocatechinmonoacetate.**—see Guaiacetin

**Sodium Pyrophosphate Merck.**—Pure, cryst. or dried (1

$\text{Na}_4\text{P}_2\text{O}_7 + 10\text{H}_2\text{O}$ , cryst.;  $\text{Na}_4\text{P}_2\text{O}_7$ , dried.—Wh., monoc. prisms, or wh. pieces.—*Sol.* (cryst.), abt. 11.5 W. at 25° C.; 1.1 boiling W.; insol. A.—At 100° C. the cryst. lose water of cryst. (40.35%).—*Cath.*; *Hepatic*; *Stim.*; *Antilithic*.—*Uses:* *Lithiasis*.—*Techn.*, manuf. iron pyrophosphates.—*Dose:* *Cryst.*, 5–10 grains (0.3–2.6 Gm.).

do. Merck.—Fused (2)

(Anhydrous Sodium Pyrophosphate).— $\text{Na}_4\text{P}_2\text{O}_7$ .—Wh. sticks.—*Sol.* W.

**Sodium Pyrophosphate Merck.**—Reagent.—Cryst. (2

$\text{Na}_4\text{P}_2\text{O}_7 + 10\text{H}_2\text{O}$ .—Colorl., transp. cryst.—*Sol.* 10–12 cold, abt. 1 boil. W.; insol. A.—*Aqu.* solut. alkal. to litmus paper.—*Test:* ( $\text{Na}_2\text{HPO}_4$ ) 1:20 solut. + solut.  $\text{AgNO}_3$  — pure wh. ppt. — Other tests as detailed under sod. phosphate.—*Uses:* Electrolytic separ. & determ. metals.

*Note.*—For complete tests see "Chemical

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

Reagents, Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Pyrophosphate (Acid) Merck** (4)  
(Sodium Biphosphate) —  $\text{Na}_2\text{H}_2\text{P}_2\text{O}_7$ .—Wh., fused masses.—*Sol.* W.

**Sodium Pyrosulphite Merck.**—Dry, 90–100% (3)  
 $\text{Na}_2\text{S}_2\text{O}_5$ .—Wh., cryst. powd.—*Sol.*, cas. W.

**Sodium Rhodanide.**—see **Sodium Sulphocyanate**

**Sodium Rosanilinesulphonate.**—see **Ruby S**

**Sodium Rosolate Merck** (7)  
(Sodium Corallinate).—Sod. salt of trioxylphenyltolylcarbinol. —  $\text{NaC}_{20}\text{H}_{15}\text{O}_3$ .—Dark-red masses; greenish luster. — *Sol.* W., A. — *Uses.*: Microsc. stain.

**Sodium Saccharate Merck** (35)  
 $\text{C}_{12}\text{H}_{21}\text{NaO}_{11}$ .—Wh. powd.—*Sol.* W. — *Uses.*: Hypoderm. & intraven. as powerful cardiac tonic, & in acute anemia where death threatens.—*Dose* 8–11 fl. oz. (250–330 Cc.) by inf. of solut. contain. 0.033% sod. saccharate & 0.05% NaCl.

**Sodium Salicylate Merck.**—Highest Purity, (1)  
cryst.

$\text{NaC}_7\text{H}_5\text{O}_3$ , or,  $\text{C}_6\text{H}_4(\text{OH})\text{COONa}$ .—Lustr., wh. scales, or microcryst. powd.; sweetish, saline taste.—*Sol.* 0.9 W., 6 A., G. at 15° C.; (0.8 W., 5.5 A. at 25° C.; v. cas. boil. W. or A., U. S. P.).—*Antirheum.*: Antisept.; Antipyr.—*Uses.*: Rheumat., neuralg., pleurisy, scarlat., chorea, pericarditis, migraine, &c.—Specific in artie. rheumat.—*Doses.*: 2–30 grains (0.12–2 Gm.); in artie. rheumat., 15–30 grains (1–2 Gm.) every hr.—*Max. D.* 60 grains (4 Gm.) single.—Also in suppos., 60–90 grains (4–6 Gm.).—*Incomp.*: ferric salts, lime water, spt. nitrous ether, mineral acids, quinine salts in solut., lead acetate, silver nitrate in solut., sod. phosphate in powd.

**do. Merck** (1)  
 $\text{NaC}_7\text{H}_5\text{O}_3$ .—Wh., mealy powd.—*Sol.* W., A., G.—*Antirheum.*; Antipyr.—*Uses.*: Rheumat., neuralg., pleurisy, migraine, &c.—*Dose* 2–30 grains (0.12–2 Gm.).—*Incomp.*: As of preceding.

**do. Merck.**—Fr. Natural Oil Wintergreen (7)  
Fr. natural oil of wintergreen.— $\text{C}_6\text{H}_4(\text{OH})\text{COONa}$ .—Wh. scales, or powd.; faint, arom. odor.—*Sol.* A., W.—*Uses.*: As of preceding.

**Sodium Salicylsulphonate.**—see **Sodium Sulphosalicylate**

**Sodium Santonate Merck (Not Santoninate)** (15)  
 $\text{NaC}_{15}\text{H}_{19}\text{O}_4$ .—Wh., hygros. powd.—*Sol.* A.; v. cas. W.—Anthelmintic.—*Dose* 1½–4 grains (0.1–0.25–0.36 Gm.).

**Sodium Santoninate Merck (Not Santonate)** (65)  
 $\text{NaC}_{15}\text{H}_{19}\text{O}_4 + 3\frac{1}{2}\text{H}_2\text{O}$ .—Wh. cryst.; mildly saline & somewhat bitter taste; turn yellow on expos.

to light.—*Sol.* 3 W. 12 A.; 0.5 boil. W., 3.4 boil. A. — Anthelmintic. — *Uses.*: Inst. of santonin for worms in intest. Less efficient than santonin as it does not reaching the intestines. Is best given in keratinized pills.—*Dose* ½–1 grain (0.015–0.06 Gm.) for adults.—*Max. D.* 3 grains (0.2 Gm.) single, 10 grains (0.6 Gm.) p. d.—*Cont.* Keep fr. light in dark amber bottles.

**Sodium Selenate Merck** (70)  
 $\text{Na}_2\text{SeO}_4 + 10\text{H}_2\text{O}$ .—Wh. cryst.—*Uses.*: Reagent

**Sodium Selenite Merck.**—Highest Purity (60)  
 $\text{Na}_2\text{SeO}_3$ .—Wh. cryst.—*Sol.*, cas. W.; insol. A. — *Uses.*: In bacteriology, in 2% solut., for demonstrat. reducing properties of bacteria.

**do. Merck.**—Commercial (25)  
*Uses.*: Glass-making.

**Sodium Silicate Merck.**—Pure, cryst. (2)  
(Soluble Glass).— $\text{Na}_2\text{SiO}_3 + \text{aq.}$ .—Wh. to grayish-wh., hard, flat pieces.—*Sol.* W.—*Uses.*: A 1:500 solut. in Lippspringe water has been recom. in tuberculosis; chiefly used techn.

**do.**—Crude, lumps or powder (1)  
Glassy masses, or whitish-brown powd.—*Sol.* W.

**do.**—Solution  
20% silica & 10% soda.— $\text{Na}_2\text{SiO}_3 + \text{aq.}$ .—Yellowish or pale greenish-yellow, viscid liq.; sharp alkal., saline taste. — Sp. Gr. 1.3–1.4 at 15° C. — *Uses.*: *Extern.*, fixed dressings for dis. joints, fractures, &c.—*Intern.*, rarely as antilithic in gout.—Also in artif. mineral waters, & techn.—*Dose* 4–10 M (0.25–0.6 Cc.) well diluted.—*Inf.*, in gonorr. in 0.1% solut.—*Incomp.*, with acids.—*Caut.* Keep in rubber-stoppered bottles.

**do.**—Solution, Crude  
Syrupy, yellowish, str'ly alkal. liq. — Sp. Gr. 40–12° Bé.—*Uses.*: Techn., fireproofing fabrics, cementing stones, waterproofing walls, in hydraulic mortars, dyeing & bleaching, painting on glass, cements, filling soaps, &c.

**Sodium Silicofluoride Merck.**—Pure (2)  
(Sodium Fluosilicate; Salufer).— $\text{Na}_2\text{SiF}_6$ .—Wh., odorl., tastel., gran. powd.—*Sol.* 200 W. — Antisept.; Germicide; Deodorant; Stypt.—*Uses.*: *Extern.*, wounds, carious teeth, cystitis, gonorr., &c., in 1:500 solut. or weaker. Superior to corros. sublimate as disinf. for irrigating cavities, & in gynecological practice.—*Appl.* 1:5000 solut.; non-toxic, non-irritant.

**Sodium Silvinate.**—see **Sodium Sylvate**

**Sodium Sozoiodolate.**—see **Sozoiodole-Sodium**

**Sodium Stannate Merck** (2)  
 $\text{Na}_2\text{SnO}_3 + 3\text{H}_2\text{O}$ .—Wh. powd., or lumps.—*Sol.* 1.6 W. at 20° C.—*Uses.*: Mordant in dyeing.

**Sodium Stannichloride.**—see **Tin & Sodium Chloride**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Sodium Stannite, Solution.*—see **Tin Oxide & Soda, Solution**

**Sodium Stearate Merck.**—Pure (3

$\text{NaC}_{17}\text{H}_{35}\text{O}_2$ .—Wh. powd.; soapy touch.—*Sol. W.*—*Uses:* Preparing Unna's alcohol pencils (sod. stearate 6, glycerin 2.5, alcohol to make 100), used in impetiginous dermatoses.

*Sodium Subsulphite.*—see **Sodium Hyposulphite**

**Sodium Succinate Merck.**—Pure, cryst. (15

$\text{Na}_2\text{C}_4\text{H}_4\text{O}_4 + 6\text{H}_2\text{O}$ .—Wh., monoclinic prisms.—*Sol. W.*—*Uses:* Catarrhal jaundice.—*Dose* 5 grains (0.3 Gm.) every 3 hrs.

do. **Merck.**—Pure, anhydrous (25

$\text{Na}_2\text{C}_4\text{H}_4\text{O}_4$ .—Wh. powd.—*Sol. W.*

**Sodium Sulphanilate Merck** (8

(Sodium Anilinesulphonate; Sodium Para-amidobenzenesulphonate).— $\text{NaC}_6\text{H}_4(\text{NH}_2)\text{SO}_3 + 2\text{H}_2\text{O}$ .—Wh., lustr. leaflets.—*Sol. W.*—*Uses:* Recom. for dispelling unpleasant symptoms attending acute catarrh & iodism, as it converts the injurious nitrites formed in saliva & nasal mucus into indifferent diazo compounds.—*Dose* 15 grains (1 Gm.) in water, 6 t. p. d.

**Sodium Sulphantimonate Merck** (3

(Sodium Thioantimonate; Schlippe's Salt).— $\text{Na}_3\text{SbS}_4 + 9\text{H}_2\text{O}$ .—Large, colorl. or yellow, tetrahedral cryst.; alk. react.—*Sol. W.*—*Uses:* Reagent. for alkaloids.

**Sodium Sulphate Merck.**—Highest Purity, cryst. & gran. (1

(Glauber's Salt).— $\text{Na}_2\text{SO}_4 + 10\text{H}_2\text{O}$ .—Colorl., efflor., monoc. prisms, or gran. cryst.; bitter, saline taste.—*Sol.* 2.8 W. at 15° C., G., 0.25 W. at 34° C.; 0.47 W. at 100° C.; insol. A., (U. S. P.).—*Melt.* 33° C.—At 100° C. loses all water of cryst. (55.9%).—*Cath.*; *Aper.*; *Diur.*—*Uses:* Constip., dropsy, torpid liver, cystitis, &c., & in artif. mineral waters & salts. Mostly in veter. pract.—*Dose* 1-8 dr. (4-30 Gm.).—*Caut.* Keep in well-stop. bot.

do. **Merck.**—Highest Purity, Medicinal, dried (1

$\text{Na}_2\text{SO}_4 + \text{H}_2\text{O}$ .—Wh. powd.—*Sol. W.*—*Dose* 60-240 grains (4-15 Gm.).—Also in veter. medicine.

do. **Merck.**—Pure, dried (1

*Uses:* Veter. medicine; & techn., in manuf. sod. carbonate, glass, ultramarine, in dyeing, & in frigorific mixtures.

do. **Merck.**—Commercial (1

**Sodium Sulphate Merck.**—Reagent.—Cryst. (2

$\text{Na}_2\text{SO}_4 + 10\text{H}_2\text{O}$ .—Colorl., effloresc. cryst.—*Sol.* 3 cold, 0.4 boil., W.; insol. A.—*Aqu. solut.* neutral to litmus paper.—*Tests:* (*Impur.* *Insol.* in W.) 5 Gm. + 50 Cc.  $\text{H}_2\text{O}$  affords clear solut.—(*Cl*; *Heavy Met.*; *Ca*; *Mg*) portions of 20 Cc. of 1:20 solut. should not be affected by: *a:* *aqu.*  $\text{H}_2\text{S}$ ; *b:*  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ ; *c:* solut.  $\text{AgNO}_3$ ; *d:* solut.

$\text{Na}_2\text{HPO}_4$ .—(*Fe*) 1 Gm. + 20 Cc.  $\text{H}_2\text{O}$  + few drops  $\text{HCl}$  + solut.  $\text{KSCN}$ —no red color.—(*As*) 2 Gm. + 20 Cc.  $\text{H}_2\text{O}$ ; introduce in sm. quant. into Marsh appar. started w. 20 Gm. As-free Zn & dil. (1:5)  $\text{H}_2\text{SO}_4$ —no deposit in reduct. tube within  $\frac{1}{2}$  hr.—*Uses:* Replacing  $\text{K}_2\text{SO}_4$ ; remov. Pb & Bi fr. soluts.; determ. fusel oil.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Sulphide Merck.**—Cryst. (1

(Sodium Monosulphide).— $\text{Na}_2\text{S} + 9\text{H}_2\text{O}$ .—Colorl. to yellowish, deliq. cryst.—*Sol. W.*

do. **Merck.**—Cryst., free from sulphite (2

do. **Merck.**—Pure, fused (1

do. **Merck.**—Fused (1

$\text{Na}_2\text{S}$  + Polysulphides.—Brown sticks or pieces.—*Uses:* In tanning for removing hair fr. hides, & manuf. coal-tar dyes & sulphide blacks.

**Sodium Sulphide Merck.**—Reagent.—Cryst. (2

$\text{Na}_2\text{S} + 9\text{H}_2\text{O}$ .—Colorl., transp. cryst.; at least 97%  $\text{Na}_2\text{S} + 9\text{H}_2\text{O}$ .—*Sol.*, eas. & clearly in W.—*Aqu. solut.* alk. to litmus paper.—*Tests:* (*NH*, *Salts*) 3 Gm. + 20 Cc.  $\text{H}_2\text{O}$  + solut.  $\text{NaOH}$ ; heat—no  $\text{NH}_3$  vapors evolv. (test w. moist litmus paper).—*Uses:* Separ. some heavy metals, e.g., Cu, Sb, Sn, Bi, Cd; determ. Cu & Zn.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

do. **Merck.**—Reagent.—Solution.—For Nitrogen determ. accord. to Kjeldahl

5%  $\text{Na}_2\text{S}$ .—*Tests:* (*N*) 100 Cc. + 50 Cc. N-free solut.  $\text{NaOH}$  (sp. gr. 1.3) + 1 Gm. Zn-dust; distil off abt. 50 Cc.; collect distillate in U-tube receiver cont. abt. 20 Cc.  $\text{H}_2\text{O}$  + 2-3 Cc. decinorm.  $\text{HCl}$ ; titrate w. decinorm.  $\text{KOH}$  (methyl orange indic.)— $\text{KOH}$  solut. used should be at most 0.2 Cc. less than quant. of acid placed in receiver.—*Uses:* Determ. N.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Sodium Sulphite Merck.**—Pure, cryst. or dried (1

Cryst.,  $\text{Na}_2\text{SO}_3 + 7\text{H}_2\text{O}$ ; dried,  $\text{Na}_2\text{SO}_3$ .—Colorl. cryst. or powd.; saline, sulphurous taste.—*Sol.* (cryst.) in abt. 4 W. at 15° C.; sparingly A. (2 W. at 25° C.; 1.4 boil. W., U. S. P.).—*Antisep.*; *Antizymotic.*—*Uses:* Skin dis., sore mouth, dipth., sarcina ventriculi, & chronic merc. affect.; also chem.—*Techn.*, as preservative. The impure grades of the salt are used like the sod. bisulphite (*q. v.*) in general.—*Dose* (cryst.), 10-60 grains (0.6-4 Gm.).—*Caut.* Keep well stoppered & cool.

do. **Merck.**—Cryst. or dried (1

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacal; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

## Sodium Sulphite Merck.—Reagent.—Cryst. (1

$\text{Na}_2\text{SO}_3 \cdot 7\text{H}_2\text{O}$ .—Colorl., prismatic crystals, effloresce in air.—*Sol.*, ex. W.—Aq. solut. alkali to litmus paper. *Tests* (*Heavy Met.*), as detailed under acid bisulphate.—*Uses*: Reducing agent, especially arsenic to arsenous acid, decolor. aldehydes.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## do. Merck.—Reagent.—Dried (2

$\text{Na}_2\text{SO}_3$ .—Wh. powd., 85–90%  $\text{Na}_2\text{SO}_3$ .—*Tests*: As under sodium bisulphite.—*Uses*: As of preceding.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## Sodium Sulphocarbolate.—see Sodium Phenosulphonate

## Sodium Sulphocarbonate Merck (2

$\text{Na}_2\text{CS}_3$ .—Fr. powd., fused sodium sulphide by carbon disulphide.—Coarse, brown powd.—*Sol.* W.—*Antisept.*—*Uses*: Destroying insects injurious to plants, & especially vines; chemically, for detect. Co & Ni.

## Sodium Sulphocyanate Merck.—Pure, cryst., or dried (4

(Sodium Sulphocyanide, or Rhodanide).— $\text{NaSCN}$ .—Colorl., deliq. cryst., or wh. powd.—*Sol.* A., W.—*Uses*: Reagent.

## Sodium "Sulphoichthyolate."—see Ichthyol Sodium

## Sodium Sulphoricinate Berlioz-Heryng-Merck (5

$\text{C}_{18}\text{H}_{15}\text{O}_2\text{NaSO}_4(?)$ .—Clear, yellowish-brown, syrupy liq.; alkaline reaction.—*Sol.* E., A., C.; on shaking w. W., liquid foams strongly & forms an emulsion.—*Sp. Gr.* 1.035 at 15° C.—*Antisept.*—*Uses*: *Extern.*, Skin dis. Also as solv. for phenol, iodine, iodoform, pyrogallol, resorcinol, potass. iodide, naphthalene, &c.—Usually used in form of sod. phenolsulphoricinate.

## Sodium Sulphosalicylate Merck.—Cryst. (15

(Sodium Salicylsulphonate).— $\text{NaC}_7\text{H}_5\text{O}_3\text{SO}_3$ .—Wh., cryst. powd., sour, astring. taste.—*Sol.* W.; alm. insol. A., E.—*Antisept.*; Antirheum.; Antipyr.—*Uses*: In rheum., neural., chorea, pleurisy, &c., instead of sod. salicylate; less powerful than latter, but free fr. the after-effects.—*Dose* 10–30 grains (0.6–2 Gm.).

## Sodium Sulphovinate.—see Sodium Ethylsulphate

## Sodium Sulphydrate Merck (8

(Sodium Hydrosulphate or Hydrosulphide).— $\text{NaHS} + \text{aq.}$ .—Colorl. cryst., when fresh.—*Sol.*, eas. W.—*Uses*: Chem. analysis.

## Sodium Superoxide.—see Sodium Peroxide

## Sodium Sylvate Merck (20

(Sodium Abietinate, or Silvinate).— $\text{C}_{20}\text{H}_{33}\text{O}_2\text{Na}$ .—Wh. powd.—*Sol.* W., A.—*Uses*: Bleach.—*Dose* 8–30 grains (0.5–2 Gm.) 3–4 t. p. d.

## Sodium Tannate Merck (6

$\text{NaC}_{14}\text{H}_9\text{O}_6$ .—Brownish-black lumps or powd.—*Sol.* W.

## Sodium Tartrate Merck.—Highest Purity, Medicinal, cryst. (1

(Normal Sodium Tartrate).— $\text{Na}_2\text{C}_4\text{H}_4\text{O}_6 \cdot 2\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W.—Cath.; Refrigerant; Diur.—*Uses*: Taster. substit. for Rochelle & Epsom salts.—*Dose*: As lax., 4 Sdr. (15–30 Gm.) once p. d., diur., 15–45 grains (1–3 Gm.) 2–3 t. p. d.

## do. Merck (1

## Sodium Taurocholate Merck (250

Fr. bile of carnivora.— $\text{NaC}_{26}\text{H}_{44}\text{NSO}_7$ .—Yellowish-gray powd.—*Sol.* W., A.—Powerful cholagogue.—*Uses*: Deficient biliary secretion.—*Dose* 2–6 grains (0.12–0.36 Gm.); 60–75 grains (4–5 Gm.) p. d.

## Sodium Tellurate Merck (700

(Normal Sodium Tellurate).— $\text{Na}_2\text{TeO}_4 \cdot 5\text{H}_2\text{O}$ .—Wh. powd.—*Sol.* W.—Antihidrotic; Antisept.; Antipyr.—*Uses*: Night sw. of phth., gastric ulc., rheum., & typhoid fever.—*Dose*  $\frac{1}{2}$ – $\frac{3}{4}$  grain (0.015–0.05 Gm.) in alcoh. mixt. or elixirs.

## Sodium Tellurite Merck (700

(Normal Sodium Tellurite).— $\text{Na}_2\text{TeO}_3$ .—Wh. powd.—*Sol.*, sl. W.—*Uses*: In bacteriology for demonstrating reducing properties of bacteria.

## Sodium Tetraborate.—see Sodium Borate; Sodium Borate, Neutral

## Sodium Tetraiodophenolphthalein.—see Antinosin

## Sodium Tetrasilicate Merck (30

Wh. powd.—*Sol.*, part. W.

## Sodium Tetravanadate.—see Sodium Divanadate

## Sodium Thioantimonate.—see Sodium Sulphan-timonate

## Sodium Thiophenesulphonate Merck (300

$\text{NaC}_6\text{H}_4\text{S}_2\text{O}_3 + \text{H}_2\text{O}$ .—Wh. powd.; 33% sulphur.—*Sol.* W.—*Antisept.*; Dermic.—*Uses*: Prurigo & o. skin dis. in 5–10% oint.

## Sodium Thiosulphate Merck.—Highest Purity, cryst. & gran. (1

(Sodium Hyposulphite; Sodium Subsulphite; Antichlor).— $\text{Na}_2\text{S}_2\text{O}_3 + 5\text{H}_2\text{O}$ .—Wh., transp., monoc. prisms; cooling w. bitter after-taste.—*Sol.* 0.65 W. at 15° C.; (abt. 0.35 W. at 25° C.; sl. oil turpent.; insol. A., U. S. P.).—*Melt.* 50° C. when rapid. heated.—*Antisept.*; Dermic.—*Uses*: Parasitic skin dis., sore mouth, diphth., pyemia, sarcina ventriculi, diar., typhoid fever, flatulent dyspep., &c.—*Extern.*, in 5–10% solut. in chloro-asma & ringworm.—*Dose* 5–20 grains (0.3–1.3 Gm.) several t. p. d.—In large doses (150 grains

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



[10 Gm.] p. d.) in chron. fetid bronchitis & pulmonary gangrene.—*Incomp.*, iodine, acids, &c.—*Caut.* Keep well stoppered.

### Sodium Thiosulphate Merck.—Cryst. (1)

*Uses:* Techn., as "antichlor" in bleaching & paper-making, as fixer in fotogr., in extract. of silver ores in metallurgy, as mordant for wool, manuf. aldehyde green, reducer in chrome dyeing, disinfecting drinking water, &c.

### Sodium Thiosulphate Merck.—Reagent (1)

(Sodium Hyposulphite).— $\text{Na}_2\text{S}_2\text{O}_3 + 5\text{H}_2\text{O}$ .—Colorl., odorl. cryst.; perman. in air at ord. temp.—*Sol.*, less than 1 cold W.—*Melt.*  $50^\circ\text{C}$ . in its water of cryst.—*Aqu.* 1:1 solut. sl'tly alk. to litmus paper.—*Tests:* ( $\text{H}_2\text{CO}_3$ ;  $\text{H}_2\text{SO}_4$ ;  $\text{H}_2\text{SO}_3$ ) 3 Gm.+50 Cc.  $\text{H}_2\text{O}$ +decinorm. I (abt. 120 Cc.) till liq. sl'tly yellow; then add solut.  $\text{BaCl}_2$ —no turb.—(*Free Alkali*) 1 Gm.+10 Cc.  $\text{H}_2\text{O}$ +phenolphthalein—no red color.—(*Sulphide*) 1 Gm.+10 Cc.  $\text{H}_2\text{O}$ +solut.  $\text{ZnSO}_4$ —no react.—(*Ca*) 1 Gm.+20 Cc.  $\text{H}_2\text{O}$ + $\text{NH}_4\text{OH}$ +solut. ( $\text{NH}_4$ ) $_2$  $\text{C}_2\text{O}_4$ —no turb.—*Uses:* Prepar. volumetric soluts. for use in determ. Cl, Bi, I; in analysis of bleaching powd., chlorates, bromates, iodates, permanganates, & peroxides such as hydrogen, lead, manganese, & magnesium peroxides; iron salts, chromic acid; detect. alkaloids.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### Sodium Trichloracetate Merck (35)

Fr. hydrated chloral, by sod. permang.— $\text{CCl}_3\text{COONa} + 3\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W.

### Sodium Trichlorophenate Merck (20)

(Sodium Trichlorocarbonate).— $\text{C}_6\text{H}_2\text{Cl}_3\text{ONa}$ .—Wh., cryst. powd.—*Sol.*, hot W.—Antiseptic.

### Sodium Truxillate Merck (150)

$\text{Na}_2\text{C}_{18}\text{H}_{14}\text{O}_4 + 10\text{H}_2\text{O}$ .—Wh. powd.—*Sol.* W., A.

### Sodium Tungstate Merck.—Pure (3)

(Sodium Wolframate).— $\text{Na}_2\text{WO}_4 + 2\text{H}_2\text{O}$ .—Colorl., rhombic prisms; bitter taste.—*Sol.* 4 W.; 2 boil. W.—*Uses:* Chemical.

#### do. Merck.—Purified (3)

Colorl. cryst.

#### do. Merck.—Crude (2)

Wh., cryst. powd.—*Sol.* W.—*Uses:* Fireproofing & waterproofing fabrics.

### Sodium Tungstate Merck.—Reagent (7)

(Sodium Wolframate).— $\text{Na}_2\text{WO}_4 + 2\text{H}_2\text{O}$ .—Colorl. prisms, or rhomb. plates.—*Sol.* 4 W.—*Aqu.* solut. alk. to litmus paper.—*Tests:* ( $\text{H}_2\text{O}$ ) gently ignite 1 Gm.—res. should weigh 0.88 Gm.—(*Cl*) 1 Gm.+20 Cc.  $\text{H}_2\text{O}$ +5 Cc.  $\text{HNO}_3$  (sp. gr. 1.153); filter; add to filtrate few drops solut.  $\text{AgNO}_3$ —at most sl't opalesc. turb. within 10 min.—( $\text{H}_2\text{SO}_4$ ) 1 Gm.+25 Cc.  $\text{H}_2\text{O}$ +5 Cc.  $\text{HNO}_3$  (sp. gr. 1.153); boil. 10–15 min.; filter;

to 20 Cc. filtrate add solut.  $\text{Ba}(\text{NO}_3)_2$ —no immed. turb.—*Uses:* Prepar. sod. phosphotungstate & cadmium borotungstate; in reagents for alkaloids, peptone, bile pigments, acetoacetic acid.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### Sodium Tungstate-Citric Acid Paper.—see Citric Acid Paper

### Sodium Urate Merck (7)

(Uranium Yellow; Yellow Uranium Oxide).— $\text{Na}_2\text{U}_2\text{O}_7 + 6\text{H}_2\text{O}$ .—Orange-yellow, rhombic cryst.—*Sol.*, acids.—*Uses:* Techn., in manuf. yellowish-green glass; also in painting on porcelain & in enameling.

### Sodium Urate Merck (15)

$\text{Na}_2\text{C}_4\text{H}_2\text{N}_4\text{O}_3 + \text{H}_2\text{O}$ .—Wh., gran. powd.; caustic taste.—*Sol.*, in much W. w. part. decomp.

### Sodium Valerate Merck. (9)

(Sodium Valerianate).— $\text{NaC}_5\text{H}_9\text{O}_2$ .—Colorl. cryst.; odor of valerian.—*Sol.* W., A.—*Sed.*; Nerve Stim.—*Uses:* Nervousn., hyst., mania, &c.—*Dose* 1–5 grains (0.06–0.3 Gm.).

### Sodium Vanadate, Meta.—see Sodium Metavanadate

### Sodium Vanadate Merck (25)

(Sodium Orthovanadate).— $\text{Na}_3\text{VO}_4$ .—Wh., cryst. powd.—*Sol.* W.—*Uses:* With copper salts as reagent for alkaloids.—*Techn.*, manuf. inks & aniline black.

### Sodium Wolframate.—see Sodium Tungstate

### Sodium Xanthogenate Merck (5)

$\text{S}_2\text{C}(\text{OC}_2\text{H}_5)_2\text{SNa}$ .—Yellowish powd.—*Sol.* W., A.—Antisept.; Germic.—*Uses:* Antiphyllloxerin, in aqu. solut.

### Sodium & Ammonium Oxalate Merck (3)

$\text{Na}(\text{NH}_4)\text{C}_2\text{O}_4$ .—Wh. powd.—*Sol.* W.

### Sodium & Ammonium Phosphate Merck.—Highest Purity (2)

(Microcosmic Salt; Sodium-ammonium-hydrogen phosphate).— $\text{Na}(\text{NH}_4)\text{HPO}_4 + 4\text{H}_2\text{O}$ .—Colorl., efflor. cryst.—*Sol.* W.—*Uses:* Blowpipe flux.

#### do. Merck (2)

### Sodium & Ammonium Phosphate Merck.—Reagent (3)

(Microcosmic Salt).— $(\text{NH}_4)\text{NaHPO}_4 + 4\text{H}_2\text{O}$ .—Colorl., monoclinic cryst.—*Sol.* 5 W.—*Aqu.* solut. alk. to litmus paper.—*Tests:* When fused on platin. wire, yields a clear, colorl. bead. Other tests as given under sodium phosphate.—*Uses:* Standardizing uranium soluts.; determ. Mg & Mn; reagent in blowpipe analysis.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



- Sodium & Ammonium Sulphate Merck** (2)  
 $\text{Na}_2\text{SO}_4(\text{NH}_4)_2\text{SO}_4 + 4\text{H}_2\text{O}$  or,  $\text{Na}_2(\text{NH}_4)_2\text{SO}_4 \cdot 4\text{H}_2\text{O}$ .—Wh. powd.—*Sol. W.*
- Sodium & Antimony Sulphurated Merck** (2)  
*Hepar Antimonii*.—Antimony oxide & sulphide w. sodium sulphide & sulphate.—Grayish-brown, fused lumps.—*Sol.*, part. *W.*—*Uses*: Chronic metallic poisoning.—*Dose* 1-5 grains (0.06-0.3 Gm.).—*Extern.*, in mouthwashes & lotions in 1% solut.; mixed w. water to paste as depultery.
- Sodium & Caffeine Sulphonate** (35)  
*(Symphlorol, N)*.— $\text{C}_8\text{H}_8\text{N}_4(\text{O}_2\text{SO}_2\text{Na})$ .—*Sol.* 50 *W.*; 7 boil. *W.*—*Diur.*—*Uses*: Kidney dis., fatty heart, & obesity; does not affect blood pressure or depress heart power.—*Dose* 15 grains (1 Gm.) 4-6 t. p. d. in caps.
- Sodium & Copper Chloride.**—see **Copper & Sodium Chloride**
- Sodium & Magnesium Borocitrate Merck** (5)  
*Wh. powd.*—*Sol. W.*—*Antisept.*; *Antilitic*; *Diur.*; *Cath.*—*Uses*: Lithiasis & dis. of gen.-urin. org.—*Dose* 5-30 grains (0.3-2 Gm.).
- Sodium & Magnesium Lactate Merck** (10)  
*Wh. powd.*—*Sol. W.*—*Stomachic*; *Tonic*.
- Sodium & Magnesium Phosphate Merck** (8)  
*Wh., cryst. powd.*—*Sol.*, part. *W.*
- Sodium & Magnesium Sulphate Merck** (2)  
*Wh. cryst.*—*Sol. W.*—*Lax.*
- Sodium & Magnesium Tartrate Merck** (6)  
 $\text{Na}_2\text{Mg}(\text{C}_4\text{H}_4\text{O}_6)_2 + 10\text{H}_2\text{O}$ .—*Wh. powd.*—*Sol. W.*—*Cathartic*.—*Dose* 120-240 grains (8-15 Gm.).
- Sodium & Osmium Chloride.**—see **Osmium & Sodium Chloride**
- Sodium & Palladium Chloride.**—see **Palladium & Sodium Chloride**
- Sodium & Potassium Carbonate Merck** (2)  
*(Mixt. sod. & potass. carbonates)*.—*Wh.*, efflores. gran.; fuse more readily than either component.—*Sol.* 0.54 *W.* at 15° C.—*Uses*: Chem. anal. for decomposing many insoluble or difficultly soluble substances.
- Sodium & Potassium Carbonate Merck.—Reagent.**—Fused, anhydrous.—For evolution of  $\text{CO}_2$  accord. to Kreussler (2)  
*Wh. sticks.*  
*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.
- Sodium & Potassium Phosphate Merck** (3)  
 $\text{NaKH}_2\text{PO}_4 + 7\text{H}_2\text{O}$ .—*Wh. powd.*—*Sol. W.*
- Sodium & Potassium Sulphate Merck** (2)  
 $\text{Na}_2\text{SO}_4 \cdot 3\text{K}_2\text{SO}_4$ .—*Wh. powd.*—*Sol. W.*

- Solanidine Merck** (1500)  
 Decomp. prod. of solanine; occurring also naturally— $\text{C}_4\text{H}_9\text{NO}_2$ .—*Wh.*, *cryst. need.*; rapidly turn yellow.—*Sol. A.*, *L.*—*Melt* 298° C.
- Solanine Merck.—Pure** (600)  
 Physiologically active substance fr. sprouts of *Solanum tuberosum*, L. (Potato), & fr. o. sp. of *S. Solanum dylecamara*, &c. Perf. free fr. solanidine & amorph. bases. Classed both as a glucoside (because of its decomposability into glucose) & as an alkaloid (because of its basic properties).— $\text{C}_{42}\text{H}_{75}\text{NO}_{15}$ .—*Wh.*, exceed. fine *cryst.*; bitter taste.—*Sol.*, dif. hot *A.*—*Analg.*; *Nerve Sed.*—*Uses*: Neural, vomiting of pregnancy, bronch., spasm, asthma, painful gastric affect., epileptoid tremor, locomotor ataxia, sclerosis of cord, &c.—*Dose*  $\frac{1}{10}$ -1 grain (0.01-0.06 Gm.) several t. p. d.—*Max. D.*  $\frac{1}{10}$  grains (0.1 Gm.) single; 8 grains (0.5 Gm.) p. d.—*Antid.*, tannin, emetics, cathartics, stimulants, opium.
- Solanine Hydrochloride Merck** (750)  
 $\text{C}_{42}\text{H}_{75}\text{NO}_{15}\text{HCl}$ .—*Wh.*, amorph. powd.—*Sol. W.*—*Uses & Doses*: As of solanine; chiefly hypoderm. up to  $\frac{3}{4}$  grain (0.05 Gm.) in aq. solut.
- Solanum Carolinense**  
 (Bull Nettle; Radical Weed; Sand-Brier; Horse Nettle).—Fruit of *Solanum carolinense*, L. Solanaceae.—*Habit.*: South America; Florida & other sections of U. S.—*Etymol.*: "Solanum," fr. Lat. "solanum," solace, referring to its anodyne properties; & "carolinensis," referring to the place where found (South Carolina).—*Constit.*: Solanine; solanidine.—*Antiepileptic*; *Antitetanic*.—*Uses*: Tetanus, convuls., & epilepsy, particul. in convuls. due to albuminuria of pregnancy. Succeed. for alkali bromides.—*Dose* 10-60 grains (0.6-1 Gm.) as fld. extr.
- Solanum Insidiosum**  
 (Jurubeba de Rio).—Root of *Solanum insidiosum*, Mart. Solanaceae.—*Habit.*: Brazil.—*Etymol.*: Lat. "solanum," see preceding; & "insidiosum," insidious, dangerous.—*Constit.*: Jurubebin.—*Stoma.*; *Diur.*; *Lax.*; *Antigonorr.*; *Antisyph.*
- Solanum Paniculatum**  
 (Jurubeba; Jurumbaba).—Root, lvs., & tops of *Solanum paniculatum*, L. Solanaceae.—*Habit.*: Brazil.—*Etymol.*: See *Solanum Carolinense*.—*Purgat.*; *Tonic.*; *Alter.*—*Uses*: Hepatic & splenic affections, & also in vesical catarrh & chron. dyspep.—The lvs. & tops are also used in gonorr., syphilis, &c.—*Doses*: *Root*: Fld. extr., 15-45  $\text{m}$  (1-3 Ce.).—*Lvs. & tops*: Fld. extr., 15-30  $\text{m}$  (1-2 Ce.).
- Solanum Tomatillo.**—see **Natri**
- Soldani's Reagent.**—For glucose  
 Solut. 15 Gm. precipit. cuprie carbonate in solut. 416 Gm. potass. bicarb. & 1400 Ce. *W.*—Reagent reduced by glucose (also tannin & formic acid), but not by dextrin or cane sugar.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Solferino*.—see **Fuchsine**

*Solid Blue*.—see **Induline, Water-Soluble**

*Solid Green*.—see **Brilliant Green**

*Solid Green O*.—see **Malachite Green**

*Solid Green O, Paste*.—see **Dinitrosoresorcinol**

### **Solidago Odora**

(Sweet-scented Goldenrod).—Lvs. & tops of *Solidago odora*, Aiton. Compositæ.—*Habit.*: Canada & eastern U. S.—*Etymol.*: Lat. "solidus," solid, & "agere," to act, referring to its curative effect as a vulnerary. "Odora" refers to the odor exhaled by the plant, particularly when bruised.—*Constit.*: Volat. oil.—Antipyr.; Diaphoretic; Carmin.; Styptic.—*Uses*: Fever, to relieve colic, & promote menstruation by sweating.—*Dose*: Fld. extr., 30-60 ℥ (2-4 Ce.).

### **Solidago Virgaurea**

(European Goldenrod; Aaron's-rod; Woundwort).—Herb of *Solidago Virgaurea*, L. Compositæ.—*Habit.*: Europe; northeastern U. S.—*Etymol.*: "Solidago," see preceding. Lat. "virga," a rod or branch, & "aurea," golden, referring to the color of the plant.—Diur.; Astring.; Antilithic.—*Uses*: In kidney affections, enuresis, & dropsy.—*Doses*: Fld. extr., 30-60 ℥ (2-4 Ce.).—Tinct. (Rademacher's), 30 ℥ (2 Ce.).

*Solomon's Seal*.—see **Polygonatum**

### **Soluroi**

(Thymic Acid; Nucleotinphosphoric Acid).— $\text{C}_{20}\text{H}_{26}\text{N}_4\text{O}_{15}\cdot 2\text{P}_2\text{O}_5(?)$ .—Yellow, amorph. powd.—*Sol.*, eas. W.—Uric-acid Solvent; Antarthrit.—*Uses*: Gout, rheum., uric-acid diathesis, &c.—*Dose* 4-8 grains (0.25-0.5 Gm.).

*Solution Acid Iodotannic*.—see **Acid Iodotannic**

*Solution Ammonium Selenite*.—see **Ferreira da Silva's Reagent**

*Solution Arsenous & Mercuric Iodides Merck*.—U. S. P. (1

(Donovan's Solution).—1 Gm., each, arsenous iodide & red mercuric iodide in 100 Ce.—*Misc.* W.—Alter.; Antiper.—*Uses*: Skin dis., venereal eruptions, chronic rheum., night pains in advanced specific dis., &c.—*Dose* 5-10 ℥ (0.3-0.6 Ce.).—*Antid.*: As of o. arsenicals.—*Incomp.*, alkal. & alkaloïds or their salts.

*Solution Bismuth & Potassium Iodides*.—see **Dragendorff's Reagent**

*Solution Calcium & Potassium Iodides*.—see **Marmé's Reagent**

*Solution Calcium Chlorhydrophosphate*.—see **Calcium Hydrochlorophosphate**

*Solution Calcium Hydroxide (Hydrate)*.—see **Calcium Hydroxide, Solution**

*Solution Chlorine Compound*.—U. S. P.

(Chlorine Water).—Aq. solut. chlorine fr. potass. chlorate (5 Gm.), HCl (48 Ce.), & water

(to make 1,000 Ce.).—Sl'y yellowish-green liq.; disagr. chlorine taste; abt. 0.4% chlorine.—Deodorizer; Antisep.—*Uses*: Intern., disinf. in infectious dis., like diphth., scarlat., typhus, &c.—*Extern.*, buboes, cancerous sores, abscesses, ulcers, &c.; gargle in smallpox, putrid sore throat, &c.; also as reagent.—*Dose* 15-240 ℥ (1-15 Ce.), dil. with W.—*Appl.*, wash.—*Antid.*, milk & albumen.—*Caut.* Keep in dark-amber or black bot.

*Solution Copper Tartrate, Alkaline*.—see **Fehling's Solution**

*Solution, Donovan's*.—see **Solution Arsenous & Mercuric Iodides**

*Solution, Fehling's*.—see **Fehling's Solution**

*Solution Formaldehyde*.—see **Formaldehyde**

*Solution, Fowler's*.—see **Solution Potassium Arsenite**

*Solution Gold & Arsenic Bromide*.—N. F.

Fr.  $\text{As}_2\text{O}_3$  2.5 Gm., &  $\text{AuBr}_3$  3.25 Gm. w. bromine water.—*Dose* 3-5 ℥ (0.2-0.3 Ce.).

*Solution Hydrogen Peroxide*.—see **Hydrogen Peroxide; Perhydrol**

*Solution Hydrogen Peroxide, Ethereal*.—see **Hydrogen Peroxide, Ethereal Solution**

*Solution Indigocarminé, Alkaline*.—see **Mulder's Reagent**

*Solution Iodine, Caustic*.—N. F.

(Churchill's Iodine Caustic).—Aq. solut. 25% iodine & 50% potass. iodide.

*Solution Iodine Compound*.—U. S. P.

(Lugol's Solution).—Aq. solut. of 5% iodine & 10% potass. iodide.—*Alternative*.—*Uses*: Syph. affect., rheum., & scrof.—*Dose* 1-10 ℥ (0.06-0.6 Ce.).

*Solution Iron Oxysulphate*.—N. F.

Fr. ferrous sulph. 165 Gm. & nitric acid 165 Gm. w. W. to make 1000 Ce.

*Solution Iron Persulphate or Subsulphate*.—see **Iron Sulphate, Basic, Solution**

*Solution Iron Succinate with Potassium Citrate*

Deep reddish-brown liq.—Sp. Gr. 1.110—*Misc.* W.—Tonic; Astring.

*Solution Iron Tersulphate*.—see **Iron Sulphate, Ferric, Solution**

*Solution Mercury Cyanide, Alkaline*.—see **Knapp's Reagent**

*Solution Mercury & Barium Iodide*.—see **Mercury & Barium Iodide, Solution**

*Solution Mercury & Potassium Iodide*.—see **Mayer's Reagent; Thoulet's Solution**

*Solution Mercury & Potassium Iodide, Alkaline*.—see **Nessler's Reagent; Sacchssé's Solution**

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Solution Methylene Blue*.—*See* Loeffler's Methylene-Blue Solution

*Solution, Monsel's*.—*See* Iron Sulphate, Basic, Solution

*Solution Nitroglycerin*.—*See* Spirit Glyceryl Trinitrate

*Solution Picric & Citric Acids*.—*See* Esbach's Reagent

**Solution Potassium Arsenite Merck.** U.S.P. 1

(Fowler's Solution).—1 Gm. of arsenic trioxide in 100 Cc.—*Sol.* W., A.—*Antip.*: Antiper. Tonic

*Uses*: Chorea, skin dis., anemia, chlorosis, interm. fever, malarial affect., periodic neural., chronic rheum., &c. Never give on an empty stomach.—*Dose*: 1-5  $\text{m}$  (0.06-0.3 Cc.).—*Incamp.*, alkaloidal salts, hypophosphites, iodides & sulphites, in acid solut.; salts of aluminum, antimony, barium, calcium, chromium, copper, lead, mercury, silver, & zinc, in neutral solutions; tannic acid, iron salts.—*Antid.*, emetics, stomach siphon, freshly precipitated ferric hydroxide, or ferric hydroxide with magnesia, saccharated ferric oxide.—*Caution*, Poison!

*Solution Soda*.—*See* Sodium Hydroxide Solution

**Solution Soda Chlorinated.**—U. S. P.

(Labarraque's Solution).—Aq. solut. containing sod. hypochlorite, NaOCl, sod. chloride, sod. carbonate; not less than 2.4% available chlorine.—Pale-greenish liq.; chlorine odor; disagr. alkali taste.—*Sp. Gr.*, abt. 1.050 at 25° C. (U. S. P.).—*Antisept.*; *Disinf.*; *Stim.*; *Resolvent*.—*Uses*: Malignant scarlat., typhoid fever, dysent., syphilis, serof., putrid sore throat, glandular enlargements, &c.—*Techn.*, detergent, disinfect., bleaching, &c.—*Dose*: 30-60  $\text{m}$  (2-4 Cc.).—*Inf.*, in gonorr., in 2% solut.

*Solution Trinitrin*.—*See* Spirit Glyceryl Trinitrate

*Solution Zinc Iodide-Starch*.—*See* Zinc Iodide-Starch Solution

**Solutol** (1

Dark-brown, alkaline solut. of cresol in an alkali cresotate.—60.4% cresol.—*Sol.* W.—*Disinf.*; *Antiputrefactive*.—*Uses*: *Disinf.* water-closets, sputa, bed-clothes, excreta, &c.

**Solveol** (2

Neutral conc. solut. of cresol w. sod. cresotate.—100 Cc. cont. 27 Gm. of free cresol.—Dark liq.—*Misc. W.*—*Antisept.*; *Germic.*—*Uses*: *Extern.*, 0.1% solut. for washing wounds, abscess cavities, &c.; & in 0.5% solut. for dress. wounds, abscesses, eczema, & o. skin dis., &c.

**Somnos** (2

An elix. ea. 4 fl. dr. (15 Cc.) of which cont. 18 grains (1.2 Gm.) of a 73% glycerinic solut. of trichlorethidene propenyl ether (CCl<sub>3</sub>CH=O[OH]<sub>2</sub>)<sub>3</sub>C<sub>2</sub>H<sub>5</sub>, a condens. prod. of chloral & glycerin.—Hypn.—*Dose*: 4-8 fl. dr. (15-30 Cc.).

**Sonnenschein's Reagent.** For alkaloids

1. Add solut. phosphotungstic acid. 1 Pt's alkaloïd & ammon. in aq. solut.—2. Solut. cerotic oxide in sulphuric acid.—Give color reaction w. alkaloids in conc. H<sub>2</sub>SO<sub>4</sub>.

**Sophol** (30

Silver comp. of formaldehydo-nucleonic acid. Read. plit. of formaldehyde. Yellowish-wh. powd.—*Sol.*, ea. W.—*Antisept.* *U.*—Color. & ophthalmoblenome.—*Appl.*, in soluts. up to 10%.

*Sophorine*.—*See* Cytisine

**Sorbin Merck** (2500

Sorbose; Sorbinose.—Non-fermentable sugar fr. ripe berries of Sorbus Aucuparia, L. (European Mountain-ash), by fermentation.—C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>.—Hard, rhombic cryst.; sweet taste.

*Sorbinose*.—*See* Sorbin

**Sorbit Merck** (1250

Non-fermentable sugar isomeric w. mannit & dulcitol, & obt. fr. fruit of Sorbus Aucuparia, L. (European Mountain-ash).—C<sub>6</sub>H<sub>12</sub>(OH)<sub>6</sub>.—1/2 H<sub>2</sub>O.—Colorl. cryst.—*Sol.*, eas. hot A.; insol. W.—*Melt* 102° C.—*Opt.* inactive.

*Sorbose*.—*See* Sorbin

*Sourwood*.—*See* Oxydendron

*Southernwood*.—*See* Artemesia Abrotanum

**Sozal** (20

(Aluminum Paraphenolsulphonate).—Al<sub>2</sub>(C<sub>6</sub>H<sub>4</sub>OH.SO<sub>3</sub>)<sub>6</sub>.—Brownish, cryst. gran.; faint, phenol odor; str., astring. taste.—*Sol.* W., A. G.—*Antiseptic*.—*Uses*: Tuberc. ulc., suppurations, & cystitis.—*Inf.* 1% solut.

**Soziodole-Aluminum** (22

(Aluminum Diiodoparaphenolsulphonate).—(C<sub>6</sub>H<sub>4</sub>OH.SO<sub>3</sub>)<sub>2</sub>Al+2H<sub>2</sub>O.—Colorl. needles; contains 2.75% Al.—*Sol.*, v. eas. A. & W.

**Soziodole-Ammonium** (16

(Ammonium Soziodolate; Ammonium Diiodoparaphenolsulphonate).—C<sub>6</sub>H<sub>4</sub>OH.SO<sub>3</sub>NH<sub>4</sub>.—Large, shining, nacreous, six-sided prisms.—*Sol.* 25 W.; sl. A.

**Soziodole-Barium** (16

(Barium Soziodolate).—Colorl. need.—*Sol.*, v. sl. W., & A.

**Soziodole-Lead** (16

(Lead Soziodolate).—Colorl., cryst. need.; sensit. to light.—*Sol.*, sl. cold W., but easily on addition of acetic acid.—19.5% Pb.

**Soziodole-Lithium** (22

(Lithium Soziodolate).—Cryst. need. or scales.—*Sol.*, v. eas. W.—*Uses*: Artic. rheumat., instead of salicylates.

**Soziodole-Magnesium** (22

(Magnesium Soziodolate).—Colorl., cryst. need. w. 8 molec. water of cryst.—*Sol.*, eas. W. & A.

When ordering from your supply house articles which bear the designation **Merck** (*see Preface, p. v*)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Sozoiodole-Mercury**

(23

(Mercurous Diiodoparaphenolsulphonate; Mercury Sozoiodolate).— $\text{HgC}_6\text{H}_4\text{I}_2\text{O}_3\text{S}_2$  (Fischer).—Orange-yellow, exceedingly fine powd.—32°C. Hg; 41% I.—*Sol.*, in solut. sod. chlor. or potass. iodide; insol. W., A.—Antisyph.; Antiseptic; Alternative.—*Uses*: Syph. erupt. & ulcer., enlarged glands, parasitic skin dis., intertrigo, excoriations, rhagades, eczema, & dis. joints. Oint., 3 to 5%. Hypodermically, in 8% solut. w. twice its wt. of potass. iodide, injected in constitutional syphilis in the gluteal region. The injections are painless if a 4-5% cocaine hydrochlor. solution is injected into the part 6 minutes before injecting the sozoiodolate.—*Max. D.*, per os,  $\frac{1}{4}$  grain (0.05 Gm.) single;  $2\frac{1}{2}$  grains (0.15 Gm.) p. day.—*Caut.* Poison!

**Sozoiodole-Potassium**

(15

Potassium Sozoiodolate; Potassium Diiodoparaphenolsulphonate).— $\text{C}_6\text{H}_4\text{I}_2\text{O}_3\text{HSO}_2\text{K}$ .—Colorl., odorless, cryst. powder; sl. sour taste.—52.8% of iodine; 20% of phenol; & 7% of sulphur.—*Sol.* 50 W.—Antisept.; Bactericidal.—*Uses*: *Extern.*, 10% mixt. w. talcum, or 5-10% oint. suffice for burns, cuts, bruises, abrasions, scalds, aene, exanthema, mycosis, scabies, ecz., herpes tonsurans, impetigo, syph. ule., diphth.; pure or 50% mixt. in ule. adenitis, erysipelas, ozena, otitis, & rhinitis; inj. for gonorr. The sozoiodole salts quickly destroy the Klebs-Loeffler bacillus of diphth., & solut. of 2.5% is suffic. strong to kill *Acarus scabiei* in 25 minutes.—*Incomp.*, mineral acids, ferric chloride, silver salts, &c. (Strong sulphuric acid or heat drives off iodine vapor).

**Sozoiodole-Sodium**

(16

(Sodium Diiodoparaphenolsulphonate, Sodium Sozoiodolate).— $\text{NaC}_6\text{H}_4\text{I}_2\text{O}_3\text{HSO}_3 + 2\text{H}_2\text{O}$ .—Colorl., odorl., cryst. need.—*Sol.* 15 W., A., 20 G.—Alter.; Antisept.; Antipyrr.—*Uses*: *Intern.* as intest. antisept., & in diabetes.—*Extern.*, in diphth. (the fine powd. blown into nose & throat), cervical catarrh, lupus, tuberculosis of nose & throat, chron. metritis, periostitis, tuberculous & varicose ulcers, hard & soft chancre; as insuffl. in acute & chron. laryngitis, & in 25% triturat. w. milk sugar in chron. pharyngitis, rhinitis, & rhino-pharyngitis, syph., cystitis, whoop-cough, &c.—*Dose* 15-15 grains (1-3 Gm.) per day. In whoop-cough, 3 grains per day, blown into nose.—*Appl.* 10% oint. w. lanum, 2-4% solut. in W. or 2% solut. in paraffin, in gonorr. (in altern. w. zinc sulphate), as 6-8% solut. in conjunct. catarrh, blennorr. neonator., & as mouthwash; also in stomatitis, & acute & purul. conjunctivitis.

**Sozoiodole-Zinc**

(22

(Zinc Sozoiodolate; Zinc Diiodoparaphenolsulphonate).— $\text{Zn}(\text{C}_6\text{H}_4\text{I}_2\text{O}_3\text{HSO}_3)_2 + 6\text{H}_2\text{O}$ .—Colorl., odorl. need.—*Sol.* 25 W.; A., G.—Antisept.; Astring. — *Uses*: Gonorr., catarrh of nasal & pharyngeal muc. membr., skin dis., &c.—*Appl.*:

For vesical irrigations, & wash in leucorr., gonorr. & urethritis, 1-2% solut.; in stomatitis, endometritis, & vaginismus, 5-7% solut.; in eczema, impetigo, varicose ulcer, & chancre, 5-10% oint.; in purulent otitis, otorrh., & hypertrophic rhinitis, 1-2% triturations w. talcum, milk sugar, or boric acid; in dry & tuberculous laryngitis, chron. & purulent otitis media, otorrh., ozena, chron. pharyngitis, pruritus, atroph. rhinitis, acute coryza, tuberculous ulcer, &c., 7-10-20% mixt.; as gargle, a 1 or 2% solut.

*Spanish Hop*.—see *Origanum, Cretan*

*Spanish Needles*.—see *Bidens Bipinnata*

**Sparteine Merck.—Pure**

(200

Alkaloid fr. tops of *Spartium scoparium* (Sarthamnus scoparius) (Broom).— $\text{C}_{15}\text{H}_{26}\text{N}_2$ .—Yellowish, syrupy liq.; peculiar odor; bitter taste.—*Sol.* W., E., C., A.—*Boil.*, at ord. pressure, above 360° C., w. part. decomp.; under 62-63 Mm. pressure, at 232-233° C.—Heart Stim.; Diur.—*Uses*: The salts (chiefly sulphate) only are in actual use.—*Antid.*, emetics & cathartics; tannin, stomach siphon, brandy, coffee, opium, &c. Same treatment for poison. by its salts.—*Caut.* Narcotic poison!

**Sparteine Hydriodide Merck.—Cryst.**

(200

$\text{C}_{15}\text{H}_{26}\text{N}_2\text{HI}$ .—Colorl. needles.—*Sol.* W., A.—*Uses, Doses, &c.*: As of the sulphate.

**Sparteine Hydrochloride Merck**

(150

$\text{C}_{15}\text{H}_{26}\text{N}_2\text{2HCl}$ .—Colorl. cryst.; faint, bitter after-taste.—*Sol.* W., A.—*Uses, Doses, &c.*: As of the sulphate.

**Sparteine Sulphate Merck**

(15

$\text{C}_{15}\text{H}_{26}\text{N}_2\text{H}_2\text{SO}_4 + 5\text{H}_2\text{O}$ .—Colorl., odorl., sl. hygro. prisms; bitterish taste.—*Sol.* 1.1 W., 2.4 A. at 25° C.; insol. E., C., (U.S.P.).—*Melt.* 136° C., when anhydr.—Heart Stim.; Diur.—*Uses*: To increase frequency of pulse & respiration, stimulate heart & central nervous syst., relieve weak condit. due to heart dis., irregular & retarded pulse, chloroform syncope, check pulmonary edema & dropsy. Best employed where digitalis fails or is contraindic. Most commonly used salt of sparteine.—*Dose*  $\frac{1}{4}$ -1 grain (0.015-0.06 Gm.).—*Max. D.* 2 grains (0.12 Gm.) p. d.—*Appl.*, extern. in 1:200 solut., to reduce temp. & promote cure in erysip., small-pox, scarlet fever, & measles.

**Sparteine Triiodide Merck**

(200

Fr. ethereal solut. iodine & sparteine.— $\text{C}_{15}\text{H}_{26}\text{N}_2\text{I}_3\text{HI}$ .—Black powd.—*Sol.* A.—*Uses, Doses, &c.*: As of the sulphate.

**Spasmotin**

(1000

(Sphacelotoxin).—Poisonous prin. from ergot.— $\text{C}_{20}\text{H}_{21}\text{O}_9$ .—Yellow, amorph. powd.—*Sol.* A., E., B.—Tonic; Astring.; Emmen.—*Uses*: Amen. & dysmenorr.—*Dose*  $\frac{1}{2}$ -1 $\frac{1}{2}$  grains (0.03-0.1 Gm.).

*Spergularia*.—see *Arenaria*

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Spermaceti.**—*U. S. P.*

(Cetaceum).—Peculiar, concrete, fatty substance fr. head of Phyceter (Catodon macrocephalus, L. sperm whale). *Cetacea*.—*Habit.*: Atlantic, Pacific & Indian Ocean.—*Etymol.*: "Phyceter," fr. Grk. "phy-eter," a blow-pipe, fr. "phy-in," to blow (the sperm whale has a blow-hole near edge of snout). "Macrocephalus," fr. Grk. "makros," large or large, & "kephale," head. "Spermaceti," fr. Grk. "sperma," seed, & "ketos," whale.—Pearly-white, semi-transparent masses; foliated structure; alm. odorl & tastel, but becomes rancid on exposure.—*Sol.*: E., C., CS<sub>2</sub>, oils, 50 boil. A.; insol. W. or cold A.—*Melt* 42-50° C.—*Sp. Gr.*, abt. 0.915 at 15° C. (0.935-0.914 at 25° C., *U. S. P.*).—*Constit.*: Chiefly cetin (cetyl palmitate, a compd. of cetyllic alcoh., C<sub>16</sub>H<sub>33</sub>OH, with palmitic acid, H<sub>31</sub>C<sub>17</sub>H<sub>33</sub>O<sub>2</sub>); also esters of lauric, stearic, & myristic acids w. other higher alcohols & w. glycerin.—*Demulc.*; *Emoll.*—*Uses*: As a base for oints, cerates, &c., & as emuls. w. egg-yolk or expt. oil almond.—*Techn.*, in manuf. of candles, soaps, &c.

*Sphacelotoxin.*—see **Spasmotin**

*Spice Bush.*—see **Lindera**

**Spiegel's Reagent.**—For nitric acid

Solut. diphenylamine in conc. sulphuric acid.—Reagent affords w. nitric acid & o. oxidizers a fine blue color.

**Spigelia.**—*U. S. P.*

(Pinkroot; Indian Pink; Carolina Pink; Maryland Pink; Worm-grass).—Dried rhizome & roots of *Spigelia marilandica*, L. Loganiaceae.—*Habit.*: North America (N. Jersey to Florida & west to Wisconsin).—*Etymol.*: Named for Adrian van den Spiegel, known as Spigelius, a Flemish botanist & physician (1558-1625). "Marilandica" refers to the habitat of the plant, Maryland.—*Constit.*: Spigeline; resin; tannin; bitter principle; volat. oil.—*Nar.*; Anthelm.; Mydriat.—*Uses*: To expel ascarides; admin. w. cathartics to prevent narc. effects.—*Doses*: Adults, 30-120 grains (2-8 Gm.); children, 10-20 grains (0.6-1.3 Gm.), us'ly with some cath., e.g., senna.—*Fld. extr.*, 60-120 ℥ (4-8 Ce.).

**Spigeline**

Highly toxic active principle fr. *Spigelia marilandica* (Maryland Pink).—Active Anthelm., especially in ascarides.

*Spigncl.*—see **Meum**

*Spikenard.*—see **Aralia**

**Spilanthes**

(Para Cress).—Herb of *Spilanthes oleracea*, L. Composite.—*Habit.*: West Indies; South America; cult. in all tropical countries.—*Etymol.*: Grk. "spilos," spot, & "anthos," flower, i.e., the whitish flowers are spotted black. Lat. "oleraceus," serving as domestic vegetable.—

*Constit.*: Volat. oil; tannin; spikanthin.—*Anticorbutic*; *Stimulant*.—Used also in toothache

**Spiraea**

(Meadow Queen, Meadow Sweet; Bridewort; Sweet-hay).—Fl. & herb of *Umaria* (*Spiraea*) *Umaria* Hill. Rosaceae. *Spiraea*.—*Habit.*: Europe, Western Asia, cult. in U. S.—*Etymol.*: Fr. Lat. "spiraea," *climacis*, the plant is clim-like. "Spiraea" fr. Grk. "spira," spiral, referring to the spiral-shaped capsule of certain spec.—*Constit.*: Volat. oil; aldehyc. aldehyde; salicylic acid; methyl-terchlate; piperonal; vanillin.—*Diur.*; Vermifuge; Astring.; Tonic; Febrif.

**Spirit Ammonia Merck.**—*U. S. P.* (1)

(Spirit of Hartshorn).—Alcoh. solut. of ammonia cont. 10% NH<sub>3</sub> by wt. Colorl., inflam. liq.; str., suffoc. odor of ammon.—*Sp. Gr.* 0.810 at 15° C. (0.808 at 25° C., *U. S. P.*).—*Sol.* W., A.—*Stim.*; Antispasm.—*Uses*: Intern., hyst., flatulent colic, nervous debility, &c.—*Extern.*, bruises. Also pharm.—*Dose* 10-30 ℥ (0.6-2 Ce.).

**Spirit Ammonia Aromatic Merck.**—*U. S. P.* (1)

Cont. abt. 0.34% of amm. carbonate & 9% of amm. W.—*Sol.* A.—*Stim.*; Antispasm.; Antacid.—*Uses*: Hicriety, hyst., nerv. debil., sick headache, flat. colic, &c.—*Dose* 30-60 ℥ (2-4 Ce.).

**Spirit Ants Merck.**—*N. F.* (2)

(Spirit Formic Acid).—Fr. 35 Ce. formic acid, 225 Ce. W., & alcoh. to make 1000 Ce.—*Rubef.*—*Uses*: Counterirritant in painful local affect. To develop redness of skin apply undiluted.

**Spirit Ants.**—True.

(Formic Spirit from Ants).—Fr. var. sp. of Formica (Ants).—*Rubefacient*.—*Uses*: Counterirritant in painful local affect.

**Spirit Ether Merck.**—*U. S. P.* (1)

(So-called "Hoffmann's Anodyne").—Mixt. of 32.5% ether & 67.5% alc. by vol.—Colorl., volat. liq.—Anod.; Stim.; Antispasm.—*Uses*: Nerv. affect., dysmenor., renal colic, angina pect., neural., &c.—*Dose* 10-120 ℥ (0.6-8 Ce.).

**Spirit Ether Compound Merck.**—*U. S. P.* (2)

(Hoffmann's Anodyne).—32.5% ether, 65% alc. & 2.5% ethereal oil, by volume.—*Stim.*; Antispasm.; Anod.; Hypn.—*Uses*: Nerv. affect., hyst., insomnia, neural., &c.; & nausea fr. opium.—*Dose* 10-120 ℥ (0.6-8 Ce.) in sweet W.

*Spirit Formic Acid.*—see **Spirit Ants**

*Spirit Glonoin.*—see **Spirit Glyceryl Trinitrate**

**Spirit Glyceryl Trinitrate.**—*U. S. P.*

(Spirit Glonoin; Solution of Trinitrin; Spirit or Solution of Nitroglycerin).—1% by weight of nitroglycerin in alc.—Clear, colorl. liq.—*Sp. Gr.* 0.826 to 0.832 at 15° C.; (0.814-0.820 at 25° C., *U. S. P.*)—Arterial Stimulant.—*Uses*: Angina pectoris, convulsions, asthma, heart dis., poison. by hydrogen carbide, headache, neural., &c.—*Dose* 1-2 ℥ (0.06-0.12 Ce.).

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Spirit Hartshorn*.—see **Water Ammonia**; **Spirit Ammonia**

*Spirit Mindererus*.—see **Ammonium Acetate, Solution**

**Spirit Mustard**.—*N. F.*

2% vol. oil mustard in A.

*Spirit Niter, Sweet*.—see **Spirit Nitrous Ether**

**Spirit Nitrous Ether**

(Sweet Spirit of Niter).—Alcoh. solut. of not less than 4% ethyl nitrite,  $\text{NO} \cdot \text{OC}_2\text{H}_5$ .—Pale, straw-colored liq.; fragr., pung. odor; burning taste.—*Sp. Gr.* 0.823 at 25° C. (U. S. P.).—*Sol.* W., A.—*Diaph.*; *Diur.*; *Antipyr.*; *Stim.*; *Antispasmod.*—*Uses*: Fevers, dropsy, dis. of gen.-urin. org., flatulent colic, nausea, colds.—*Dose* 30–60  $\text{M}$  (2–4 Cc.).—*Incomp.*, antipyrine, tannin, acetanilide, phenacetin, iodides, fl. extr. buchu, tinct. guaiac, morphine salts, carbonates, acacia, & ferrous sulphate.

*do.*—*Conc.*

15% solut. of ethyl nitrite in alc. w. traces of aldehyde, acetic acid, &c.—Sl'y yellowish liq.—*Sol.* W., A., E., C.

**Spirit Phosphorus**.—*N. F.*

1.2 Gm. phosphorus dissolv. in 1000 Cc. absol. A.

*Spirit Turpentine*.—see **Oil Turpentine**

*Spirit Yellow*.—see **Amidoazobenzene Hydrochloride**

**Spleen Merck**.—Dried, powder (25

Fr. spleen of sheep.—1 part=abt. 5 parts fresh organ.—*Uses*: Anemia, chlorosis, malaria, myxedema, syphilis, typhoid, Basedow's disease, rachitis, & in psychic disturbances with atrophied spleen.—*Dose* 4–12 grains (0.25–0.75 Gm.) 3 t. p. d.

*Spleenwort*.—see **Ruta-Muraria**

*Spodium*.—see **Charcoal, Animal**

**Sponge, Compressed**.—*N. F.*—*Cones*

(Sponge Tents).—Sponge impregnated w. a mixt. of acacia mucilage (1 vol.) & W. (9 vol.) & bound into cylindrical shape.—*Uses*: Enlarge wound canals, fistulous canals, the os uteri, &c.—*Caut.* Keep dry, espec. when unbound.

**Spongine Merck** (1000

Oxygen-free protein, fr. common sponge by treatment w. dil. hydrochloric acid.

*Spoonwort*.—see **Cochlearia**

*Spotted Arum*.—see **Arum**

*Sprudel Salt*.—see **Salt, Carlsbad**

*Spunk*.—see **Polyporus**

*Squaw Root*.—see **Caulophyllum**

*Squaw Vine*.—see **Mitchella**

*Squaw Weed*.—see **Senecio Aureus**

**Squill**.—*U. S. P.*

(Scilla; Sea Onion).—Bulb of *Urginea maritima* (L.), Baker (*Scilla Maritima*, L.), Liliaceae, deprived of its dry membranous outer scales, cut into thin slices & carefully dried, the central portions being rejected.—*Habit.*: Mediterranean basin, near the sea (Spain, France, Italy, Morocco, Algeria, &c.).—*Etymol.*: Fr. Grk. "skilla," an onion, fr. "schizein," to split (into scales); *Urginea*, fr. Lat. "urgere," to press, i.e., its flattened, compressed seeds; "Maritima," fr. "maritimus," relating to the sea.—*Irreg.*, more or less curved, somewh. translucent, yellowish-wh. or reddish-wh. segments,  $1\frac{1}{2}$ –2 in. (3–5 Cm.) long; sl. odor; mucil., bitter, acrid taste; brittle when dry, tough & flex. when moist.—*Constit.*: Scillitin; scillitoxin; scillipierin; sinistrin,  $\text{C}_6\text{H}_{10}\text{O}_5$ ; sugar; scillain (scillitin).—*Emet.*; *Diur.*; *Cardiac Tonic*; *Expector.*; *Cath.*—*Uses*: Coughs, colds, croup, dropsy, &c.; also in domestic economy for poisoning mice, rats, &c.—*Doses*: 1–10 grains (0.06–0.6 Gm.) several t. p. d. in dropsy; 1–3 grains (0.06–0.2 Gm.) as diur. & expector.; 6–12 grains (0.36–0.8 Gm.) emet. Large doses dangerously irritant.—*Mar. D.* 3 grains (0.2 Gm.) single; 15 grains (1 Gm.) daily.—*Flid. extr.*, 2–4  $\text{M}$  (0.12–0.25 Cc.) expector.; 10–15  $\text{M}$  (0.6–1 Cc.) emet., every 15–20 minutes.—*Comp. Flid. extr.*, 2–15  $\text{M}$  (0.12–1 Cc.).—*Alcoh. extr.*,  $1\frac{1}{2}$ – $1\frac{1}{2}$  grains (0.03–0.1 Gm.).—*Artid.*, stomach pump; tannin; demulcents; opiates; stimulants; like digitalis generally.

*Squirrel Corn*.—see **Corydalis**

*Staff Tree*.—see **Celastrus**

*Staggerwort*.—see **Senecio Jacobæa**

*Stannic & Stannous Salts*.—see under **Tin**

**Staphisagria**.—*U. S. P.*

(Stavesacre; Larkspur).—Ripe seed of *Delphinium Staphisagria*, L. Ranunculaceae.—*Habit.*: Mediterranean Basin; cult. France & Italy.—*Etymol.*: Grk. "staphis," dried grape, or raisin, & "agria," wild, i.e., the fruit clusters resemble those of the wild grapes. "Stavesacre" is a corruption of "staphisagria." "Delphinium," fr. Grk. "delphin(ion)," a dolphin, i.e., the form of the seed resembles the imaginary figures of the dolphin.—*Constit.*: Delphinine,  $\text{C}_{20}\text{H}_{35}\text{NO}_6$ ; staphisagrine (staphisaine),  $\text{C}_{22}\text{H}_{33}\text{NO}_5$ ; delphinoidine,  $\text{C}_{16}\text{H}_{25}\text{N}_2\text{O}_4$ ; delphisine,  $\text{C}_{27}\text{H}_{46}\text{N}_2\text{O}_4$ ; staphisagroine,  $\text{C}_{20}\text{H}_{24}\text{NO}_4$ ; malic acid; fixed oil; proteids.—*Antineuralgic*; *Diur.*; *Cathart.*; *Emet.*; *Rubefac.*; *Insecticide*.—*Uses*: Chiefly externally in itch, rheumat., & as insecticide.—*Dose* 1–2 grains (0.06–0.12 Gm.).—*Artid.*, stomach siphon, ammonia, digitalis, brandy, tannin, &c.

*Star Anise*.—see **Illicium**

*Star Grass*.—see **Aletris**

**Starch**.—*U. S. P.*

(Corn Starch; Amylum).—Starch grains fr. fruit of *Zea Mays*, L. Gramineae.—*Habit.*:

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 14=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1141=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



Tropical & subtropical America (chiefly Fr. U. S.).—*Etymol.*: Fr. Grk. "a" = alive, & "myle," a mill, i.e., to fine as to not require a mill-stone (grinding).—"Zea," fr. Grk. "zeo," to live, referring to its life-sustaining properties.—"Mays," fr. Spanish "maiz," fr. "mahis," the native Mayan name.—"Starch," fr. Germ. "stark," stiff or strong, referring to its stiffening properties.—Wh., tasted, powd., or angular, irreg. micro-granular masses.—*Empirical formula*  $(C_6H_{10}O_5)_n$ .—*Constt.*: Granulose; cellulose.—*Sol.*: hot W. (jelly when cold).—*Uses*: Demulc.; diet for invalids & convalesc.; dusting powd.; ememata (in aq. solut.); antid. for iodine.—*Techn.*: paste; starching fabrics, &c.—*Chem.*: as indicator (starch test-solnt.); reagent for iodine.

### Starch.—Arrow-root

(Maranta; Arrow-root).—Fecula fr. rhizome of *Maranta arundinacea*, L. Marantaceae.—*Habit.*: West Indies; also cult. in S. Carolina & Georgia, U. S., East Indies, Ceylon, & Southern Africa.—*Etymol.*: More properly "aru-root," fr. "aruaru," a Brazilian name for flour.—Wh., floury lumps; odorl. & tasted.—*Sol.*: hot W.—*Empirical formula*  $(C_6H_{10}O_5)_x$ .—*Constt.*: Granulose; cellulose.—*Demulc.*; *Nutr.*, & Dietet. for invalids & children.

#### do.—Rice

(Rice Flour).—Fecula fr. seeds of *Oryza sativa*, Gramineae.—*Habit.*: India, & all tropical & sub-tropical countries.—*Etymol.*: Fr. Grk. "oryza," rice.—Uniform, minute, polyhedric granules.—*Constt.*: Granulose; cellulose.—*Uses*: Nutrient; size for fabrics; paste; prep'g aleoh. beverages (arrak, saké, &c.).

#### do.—Wheat

Fecula fr. seeds of *Triticum vulgare*, Gramineae.—*Habit.*: All countries.—*Etymol.*: Lat. "tritrus" (fr. "tero"), to thresh, rub, or grind (i.e., seeds must be ground for eating).—Usually a fine powd. consisting of nearly spherical or ellipsoidal grains; white, odorl., & tasted. *Empirical formula*  $(C_6H_{10}O_5)_n$ .—*Constt.*: Granulose; cellulose.—*Sol.*: hot W.—*Uses*: As of corn starch (Starch, U. S. P.).

*Starch, Alant.*—see **Inulin, White**

*Starch, Cassava.*—see **Tapioca**

*Starch Iodide.*—see **Starch Iodized**

**Starch Iodized Merck** (6

(Starch Iodide).—2% iodine.—Bluish-black powd.—Insol. W.—Disinf.; Antisep.—*Uses*: Intern., diar., typhoid fever, dysent., &c.—*Extern.*, with lanolin, as substit. for tincture of iodine.—*Dose* 3-10 grains (0.2-0.6 Gm.) several t. p. d.—*Appl.*, in oint. w. lanum instead of tinct. iodine.—*Caut.* Keep well stoppered.

**Starch Soluble Merck** (2

(Amylodextrin).—By heating starch w. glycerin & adding str. alc. during the cooling.—Wh.

powd.—S. W.—U. S. P. Indicator agent, also used in textile industry, & in volum. analys.

*Starch Sugar.*—see **Dextrose**

*Starwort.*—see **Helonias**

*Statice Brasiliana.*—see **Baycuro**

### Statice Limonium

(Sea Lavender; Marsh Rosemary; Canker Root; Meadow Root).—Root of *Statice Limonium*, L., var. *Caroliniana*, Gray Phlombaginaceae.—*Habit*: Atlantic & Gulf coasts. *Etymol.*: Grk. "statikos," standing.—*Constt.*: 12-18% tannin (greenish-black color w. ferric salts); trace volat. oil; caoutchouc-like matter; gum; inorgan. salts (Na & Mg)—Astring.; Tonic.—*Uses*: Diar. & dysent.—*Appl.*, to bleeding or ulcerated surfaces, sore throat, &c.—*Dose*: Fld. extr., 10-30 ml (0.6-2 Cc.).

*Stavesacre.*—see **Staphisagria**

*Stearin.*—see **Tristearin**

*Strepulia Acuminata.*—see **Cola**

### Steresol

Brown or flesh-colored, adhesive, varnish-like antisept.; adheres closely to mucosa & skin.—Compos., benzoin, tinct. tolu. carbolic acid, ethereal oil chamomiles, shellac, & saccharin, dissolved in alcohol.—*Uses*: Painting on false membranes in diptheritic angina.

*Stibic Anhydride.*—see **Antimony Oxide, Antimonie**

*Stibious Acid, Anhydrous.*—see **Antimony Oxide, Antimonous**

*Stibium.*—see **Antimony**

### Sticta

(Lungwort Lichen; Lungmoss; Tree Lungwort; Oak Lungwort).—The lichen, *Sticta pulmonacea*, Ach. Parmeliaceae.—*Habit.*: Europe; U. S.—*Etymol.*: Lat. "sticta," fr. Grk. "stiktos," spotted, punctated. "Pulmonacea" fr. Lat. "pulmo," lung, i.e., the plant is used in pulmonary diseases.—*Constt.*: Bitter principle (stictic acid).—*Uses*: Astring. (particularly in pulmonary diseases).

*Stigmata Maydis.*—see **Zea**

**Stilbene Merck.**—Cryst. (600

(Symmetrical Diphenylethylene; Toluylene).—Fr. toluene, by passing it over heat. lead oxide.— $C_{14}H_{12}$ , or  $C_6H_5(CH:CH.C_6H_5)$ .—Colorl. to yellowish cryst.—*Sol.*, hot A., E., B.—*Melt.* 125° C.—*Boil.* 306-307° C.—*Uses*: In form of derivatives as starting point in manuf. artificial dyes.

**Stillingia.**—U. S. P.

(Queen's Root; Yaw Root; Silver Leaf).—Root of *Stillingia sylvatica*, L. Euphorbiaceae.—*Habit.*: Southeastern U. S.—*Etymol.*: Named for

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



Benjamin Stillingfleet, an English botanist of the 18th century. "Sylvatica," fr. Lat. "silva," a wood, forest, *i.e.*, it grows in the pine-barrens of the South.—*Constit.*: Stillingine (alkaloid; existence doubted); volat. oil; resin; glucoside; sylvacrol; tannin; gum.—*Einet.*; Alter. (in hepatic & cutaneous diseases); Antisyph.; Antiserofular; Expector.; Diur.; Diaph.; Sialag.; Cholag.—*Doses*: 15–30 grains (1–2 Gm.).—*Extr.*, 3–10 grains (0.2–0.6 Gm.).—*Fld. extr.*, 15–60  $\text{ml}$  (1–4 Cc.).—*Comp. fld. extr.*, 30–90  $\text{ml}$  (2–6 Cc.).

*Stoechados.*—see *Helichrysum*

### Stoehr-Renaut's Eosine

Mixt. of conc. aqu. solut. potass.-eosine, satur. solut. of hematoxylin in alc., & satur. solut. of potass. alum in glycerin.—*Uses*: Stain. sections for histological study.

*Stone Root.*—see *Collinsonia*

*Stone Seed.*—see *Lithospermum*

*Storax.*—see *Styrax*

*Stork's Bill.*—see *Erodium*; *Geranium*

### Stovaine (80)

(Dimethylaminobenzoylpentanol, or Ethyldimethylaminopentanolbenzoyl, Hydrochloride).— $\text{C}_{14}\text{H}_{21}\text{NO}_2\cdot\text{HCl}$  or,  $\text{C}_6\text{H}_5\text{OCO}(\text{CH}_2)_4\text{C}(\text{C}_2\text{H}_5)_2\cdot\text{CH}_2\cdot\text{N}(\text{CH}_3)_2\cdot\text{HCl}$ .—Small, lustr. scales.—*Sol.*, eas. W., A., acetic ether; less eas. in acetone.—*Melt.* 175° C.—Local Anesthetic.—*Uses*: In ophthalmology.

### Stramonium.—U. S. P.

(Thorn Apple; Jamestown Weed; Jimson or Jimson Weed; Stinkweed; Devil's Apple; Apple of Peru).—Dried lvs. (also seed, though not official) of *Datura Stramonium*, L. Solanaceae.—*Habit.*: Europe; Asia; America.—*Etymol.*: "Datura," fr. "tatorah," Arabic, or "dhatura," Hindoo, name of plant. "Stramonium," fr. Grk. "strychnon," synonym for "solanum"; & "manikon," raving, *i.e.*, solanaceae, which causes raving madness when taken.—*Constit.*: Lvs.: Atropine; hyoscyamine; albumen; mucilage.—*Seed*: Hyoscyamine; atropine; fixed oil; malic acid; resin; proteids.—Hypn.; Nerveine; Mydriatic; Nar.; Antispasmod.; Diur.—*Uses*: Insanity, mania, & epilepsy.—Lvs.: Smoked in asthma.—*Extern.*, in oint., f. ulcers, hemorrhoids, fissures, skin diseases, poison-oak erupt., rheumat., sprains, &c.; also to keep flies from horses, in form of 1:3 aqueous decoction as extern. appl.—*Doses*: Lvs.: 1–5 grains (0.06–0.3 Gm.).—*Alcoh. extr.*,  $\frac{1}{4}$ –1 grain (0.015–0.06 Gm.); *Max. D.*  $1\frac{1}{2}$  grains (0.1 Gm.) single, 6 grains (0.36 Gm.) daily.—*Fld. extr.*, 1–3  $\text{ml}$  (0.06–0.2 Cc.); *Max. D.* 5  $\text{ml}$  (0.3 Cc.) single, 15  $\text{ml}$  (1 Cc.) daily.—*Tinct.*, 5–10  $\text{ml}$  (0.3–0.6 Cc.).—For smoking, 15 grains (1 Gm.).—*Seed*: 1–3 grains (0.06–0.2 Gm.) in powd., tinct., extr., or fld. extr.; *Max. D.* 3 grains (0.2 Gm.) single, & 10 grains (0.6 Gm.) daily.—*Antid.*, same as for belladonna.

### Strassburger's Corallin (Rosolic Acid)

1 Gm. corallin, 25 Gm. sod. carbonate, & 100 Cc. W.—*Uses*: Staining plant tissue.

### Strasser's Fat Mixture

Solut. spermaceti & tallow in castor oil.—*Uses*: As imbedding material in microscopy.

*Strawberry.*—see *Fragaria*

*Strontia.*—see *Strontium Oxide*

### Strontium Merck.—Fr. Amalgam (3000)

*Etymol.*: Fr. "Strontian," the place in Scotland where the mineral strontianite, from which the element was first isolated, is found.—*Metal.*—Sr.—Pale-yellow pieces; one of the group of alkaline earths; oxidizes quickly on expos.—*Sp. Gr.* 2.5 at 15° C.—*Caut.* Keep under naphtha, as o. alkali metals.

do. Merck.—By Electrolysis (10000)

### Strontium Acetate Merck (2)

$\text{Sr}(\text{C}_2\text{H}_3\text{O}_2)_2 + \frac{1}{2}\text{H}_2\text{O}$ .—Wh., cryst. powd.—*Sol.* W.—Anthelm.; Tonic.—*Uses*: To expel worms.—*Dose* 10–40 grains (0.6–2.6 Gm.) twice daily, for 5 days, as anthelm.

### Strontium Arsenite Merck (8)

$\text{Sr}(\text{AsO}_2)_2 + 4\text{H}_2\text{O}(\text{?})$ .—Wh. powd.—*Sol.* W.—Alter.; Tonic.—*Uses*: Skin dis. & malarial affect.—*Dose*  $\frac{1}{30}$ – $\frac{1}{15}$  grain (0.002–0.004 Gm.) several t. p. d.

### Strontium Bromate Merck (15)

$\text{Sr}(\text{BrO}_3)_2 + \text{H}_2\text{O}$ .—Colorl. to yellowish, hygros. cryst.—*Sol.* 3 W.

### Strontium Bromide Merck.—Anhydrous, powd. (2)

$\text{SrBr}_2$ .—Wh., hygrosc. powd.—*Sol.* W.; sl. in A.—*Sed.*; Tonic.—*Uses*: Epilepsy, convulsions, headaches, stomach affect., nervousn., hyst., &c.—7 pts. of anhydrous salt are equal to 10 pts. of the cryst.—*Dose* 3–10 grains (0.2–0.6 Gm.).

do. Merck.—Cryst. (1)

$\text{SrBr}_2 + 6\text{H}_2\text{O}$ .—Colorl. cryst.; bitter, saline taste.—*Sol.*, abt. 1 W. at 25° C.; 0.4 boil. W. (U. S. P.).—Gastric Tonic; Nerve Sed.; Anti-epileptic; Antinephritic.—*Uses*: Hyperacidity of stomach, rheum., gout, epilepsy, nervousness, hyst., headache, & convulsions.—*Dose* 5–15–20 grains (0.3–1–3 Gm.). In epilepsy as much as 150 grains (10 Gm.) may be given daily.—In Basedow's disease in children, in comb. w. strontium iodide (1:2).—*Incomp.*, acids, alkaloïds, & salts of antimony, bismuth, copper, lead, mercury, & silver.—*Caut.* Keep in glass-stop. vials.

### Strontium Carbonate Merck.—Pure (1)

$\text{SrCO}_3$ .—Wh., impalp. powd.—*Sol.*, acids, & in carbonated W.

do. Merck.—Precipitated (1)

*Uses*: Pyrotechn., & in manuf. iridescent glass.

### Strontium Chlorate Merck (5)

$\text{Sr}(\text{ClO}_3)_2 + 5\text{H}_2\text{O}$ .—Wh., cryst. powd.—*Sol.*

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



- 0.6 W., A.—*Uses*: Pyrotechn. (red fire).—*Caut.*  
Use same precautions as with potass. chlorate.
- Strontium Chloride Merck.**—Highest Purity, (2)  
cryst.  
 $\text{SrCl}_2 + 6\text{H}_2\text{O}$ .—Wh. need.; sharp, bitter taste.  
—*Sol.* 2 W.
- do. Merck.—Pure, cryst. or dried (1)  
Colorl. cryst.,  $\text{SrCl}_2 + 6\text{H}_2\text{O}$  (cont. some lime),  
or white, dry, anhydr. powd. ( $\text{SrCl}_2$ ).—*Sol.*  
(cryst.), v. eas. W.; insol. A.—*Uses*: Manuf.  
stront. carbonate; also to some extent for red  
flames (in alcoholic solut.).
- Strontium Chromate Merck** (4)  
 $\text{SrCrO}_4$ .—Yellow powd.—*Sol.* W.
- Strontium Citrate Merck** (5)  
 $\text{SrC}_2\text{H}_6\text{O}_7 + \text{aq}$ .—Wh., cryst. powd.—*Sol.*, sl. W.
- Strontium Dioxide Merck.**—Hydrated (7)  
(Hydrated Strontium Peroxide).— $\text{SrO}_2 + 8\text{H}_2\text{O}$ .  
—Wh. powd.—*Sol.*, eas. acids; sl. W.—*Uses*:  
Bleaching.
- Strontium Diuranate.**—see **Uranium & Strontium Oxide**
- Strontium Fluoride Merck.**—Pure (3)  
 $\text{SrF}_2$ .—Wh., cryst. powd.—*Sol.*, in HF, HCl;  
insol. W.—Antisept.
- do. Merck.—Commercial, free fr. arsenic (2)
- Strontium Formate Merck** (10)  
 $\text{Sr}(\text{HCO}_2)_2 + 2\text{H}_2\text{O}$ .—Colorl., rhombic cryst.—  
*Sol.* W.
- Strontium Glycerinophosphate Merck** (10)  
 $\text{SrC}_2\text{H}_3\text{O}_7 + \text{PO}_4 + \text{OC}_3\text{H}_7(\text{OH})_2 + 2\text{H}_2\text{O}$ .—Wh., cryst.  
powd.—*Sol.* W.; insol. A.
- Strontium Hydroxide Merck** (1)  
(Strontium Hydrate).— $\text{Sr}(\text{OH})_2 + 8\text{H}_2\text{O}$ .—Col-  
orl., deliq., quadrate cryst.—*Sol.*, sl. W.—  
*Uses*: Techn., in sugar industry for separating  
crystallizable sugar fr. molasses; manuf. caust.  
alkalies fr. corresponding carbonates.
- Strontium Hyposulphate Merck** (10)  
 $\text{SrS}_2\text{O}_6 + 4\text{H}_2\text{O}$ .—Colorl. cryst.; bitter taste.—  
*Sol.*, hot W.
- Strontium Hyposulphite.**—see **Strontium Thio- sulphate**
- Strontium Iodide Merck** (5)  
 $\text{SrI}_2 + 6\text{H}_2\text{O}$ .—Colorl. to yellowish, deliq., gran.  
powd.; bitterish, saline taste.—*Sol.* A.; sl. E.;  
0.6 W. at 15° C.; (abt. 0.5 W. at 25° C.,  
U. S. P.); 0.27 boiling W.—Alter.; Sialag.—  
*Uses*: Instead of potass. iodide in heart dis.,  
asthma, rheum., scrof., &c.; combined w.  
stront. bromide (2:1) in Basedow's disease in  
children.—*Dose* 5-10 grains (0.3-0.6 Gm.) sin-  
gle; 15-45 grains (1-3 Gm.) p. d.—*Caut.* Keep  
in dark amber bottles.
- Strontium Lactate Merck.**—Highest Purity, Me-  
dical (2)  
 $\text{SrC}_2\text{H}_3\text{O}_7 + 3\text{H}_2\text{O}$ .—Wh., gran. powd., sl'y  
bitter taste.—*Sol.* A., 1 W.; 0.5 boiling W.—  
Anthein.; Antiepileptic; Diur.; Tonic.—*Uses*:  
Allamin. of nephritis, in worms, rheum, gout,  
& chorea.—Deerces albumin. in urine with-  
out diuretics.—*Dose*: Neph., 5-10 grains (0.3-  
0.6 Gm.) for worms, 30 grains (2 Gm.) twice p.  
d. for 5 d.—*Max. D.* 120-150 grains (8-10 Gm.)  
p. day.
- Strontium Monosulphide.**—see **Strontium Sul- phide**
- Strontium Monoxide.**—see **Strontium Oxide**
- Strontium Nitrate Merck.**—Pure, dry (1)  
 $\text{Sr}(\text{NO}_3)_2$ .—Wh. powd.—*Sol.* 1.4 W. at 20° C.;  
sl. A.—*Uses*: Pyrotechn. (red fire).
- do. Merck.—Dry (1)
- do. Merck.—Impalp. powd. (1)
- Strontium Nitrite Merck** (20)  
 $\text{Sr}(\text{NO}_2)_2$ .—Wh. to yellowish powd.—*Sol.* W.
- Strontium Oxalate Merck** (1)  
 $\text{SrC}_2\text{O}_4$ .—Wh., cryst. powd.—*Sol.*, sl. in W.—  
*Uses*: Pyrotechn.
- Strontium Oxide Merck.**—Pure, anhydrous (4)  
(Strontia; Strontium Monoxide).— $\text{SrO}$ .—Gray-  
ish-wh., porous, infusible, caustic mass.—*Sol.*  
W. w. evolution of much heat, & formation of  
hydroxide.
- Strontium Peroxide, Hydrated.**—see **Strontium Dioxide, Hydrated**
- Strontium Phosphate Merck** (2)  
 $\text{Sr}_3(\text{PO}_4)_2$ .—Wh., tastl. powd.—*Sol.*, acids.—  
Nutritive; Tonic.—*Uses*: Phth., & o. wasting  
dis. as a tissue builder. Superior to calc. phos-  
phate (Laborde).—*Dose* 10-30 grains (0.6-2  
Gm.).
- Strontium Platinocyanide** — see **Platinum & Strontium Cyanide**
- Strontium Salicylate Merck** (1)  
 $\text{Sr}(\text{C}_2\text{H}_3\text{O}_3)_2 + 2\text{H}_2\text{O}$ .—Colorl. cryst.—*Sol.*, abt.  
20 W. & abt. 75 A. at 15° C.; (18 W., 66 A. at 25°  
C.; 3.5 boil. W., 10.5 boil. A., U. S. P.).—Anti-  
rheum.; Tonic.—*Uses*: Rheum., gout, chorea,  
muscular pains, & pleurisy.—*Dose* 10-40 grains  
(0.6-2.6 Gm.) 2-3 t. p. d.
- Strontium Succinate Merck** (30)  
 $\text{SrC}_4\text{H}_4\text{O}_4$ .—Wh. powd.—*Sol.* W.
- Strontium Sulphate Merck.**—Precip., free fr. Sodium (5)  
 $\text{SrSO}_4$ .—Wh. precip.—*Sol.*, in solut. alkali  
chlorides; v. sl. W.—*Uses*: Pyrotechn.
- do. Merck.—Precip., commercial (1)

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Strontium Sulphide Merck** (2

(Strontium Monosulphide)  $\text{SrS}$ .—Light-gray powd.—*Sol.*, acids.—*Uses*: In luminous paints, because of its phosphorescent properties.

**Strontium Tartrate Merck** (6

$\text{SrC}_2\text{H}_4\text{O}_6 + 4\text{H}_2\text{O}$ .—Wh., cryst. powd.—*Sol.*, sl. in W.

**Strontium Thiosulphate Merck** (7

(Strontium Hyposulphite).—Fr. strontium acetate w. sodium thiosulphate.— $\text{SrS}_2\text{O}_3 + 5\text{H}_2\text{O}$ .—Fine need.—*Sol.* W.

**Strontium & Caffeine Sulphonate**

(Symphorol, S.).— $(\text{C}_8\text{H}_9\text{N}_4\text{O}_2\text{SO}_3)_2\text{Sr}$ .—*Sol.* W. Diur.—*Uses*: Kidney dis., fatty heart, & obesity.—*Dose* 15 grains (1 Gm.) 4-6 t. p. d. in caps.

**Strontium & Potassium Chlorate Merck** (5

$\text{Sr}(\text{ClO}_3)_2 \cdot 2\text{KClO}_3$ .—Wh., cryst. powd.—*Sol.* W.—*Uses*: Pyrotechn.

**Strophanthin Merck** (500

Glucoside, fr. seeds *Strophanthus Kombé*, Oliv.— $\text{C}_{40}\text{H}_{60}\text{O}_{19}$  (Fraser; Feist).—Wh. to yellowish, amorph., or cryst. powd.; v. bitter taste.—*Sol.* W., A.; alm. insol. E., C., B.—Vaso-constrictor; Heart Tonic. Not Diur.—*Uses*: Heart dis.; superior to digitalin in some cases.—*Dose*  $\frac{1}{300}$ — $\frac{1}{200}$  grain (0.0002–0.0003–0.001 Gm.).—*Antid.*, emetics, stomach siphon, aconite, veratrum viride, staphisagrine, muscarine, atropine ( $\frac{1}{120}$ — $\frac{1}{60}$  grain [0.0005–0.001 Gm.] hypoderm.), camphor, picrotoxin, mustard plaster, brandy.

**Strophanthin Tannate Merck** (600

Yellowish-wh., amorph. powd.; 58% strophanthin.—*Sol.* A.—*Uses*, &c.: As of strophanthin, but more easily taken.—*Dose*  $\frac{1}{120}$ — $\frac{1}{60}$  grain (0.0005–0.001 Gm.) several t. p. d.

**Strophanthin Thoms-Merck.**—Cryst. (750

(G.-Strophanthin; Gratus Strophanthin).—Glucoside fr. *Strophanthus gratus*; said to be ident. w. ouabain (q.v.).— $\text{C}_{40}\text{H}_{60}\text{O}_{12} \cdot 9\text{H}_2\text{O}$ .—Colorl., bitter, quadrangular plates.—*Sol.*, abt. 100 W., & abt. 30 absol. A. & amylic A.; sl. E., C., & acetic acid.—*Melt.* 187–188° C.—Cardiac Tonic; Diur.—*Uses*: As of digitalis in weak heart, aortal insufficiency, disturb. of compensation, dyspnea, edema, etc.—*Doses*:  $\frac{1}{20}$ — $\frac{2}{5}$  grain (0.003–0.025 Gm.); average  $\frac{1}{12}$  grain (0.005 Gm.) single;  $\frac{1}{2}$  grain (0.03 Gm.) p. d., & begin w. small initial doses.

**Strophanthus.**—U. S. P.

Ripe seed of *Strophanthus Kombé*, Oliver. Apocynaceae, deprived of its long awn.—*Habit.*: Central Africa; Asia; Philippines.—*Etymol.*: Grk. "strephein," to turn, to twist, & "anthos," flower, i.e., referring to the twisted & tailed lobes of the corolla. Lat. "hispidus," hairy, bristly, i.e., covered with long, coarse hairs.—*Constit.*: Strophanthin,  $\text{C}_{40}\text{H}_{60}\text{O}_{10}$ ; kombie acid, choline; trigonelline; fixed oil.—Cardiac Stim.; Diur.;

Substitute for digitalis.—*Uses*: Heart diseases, asthma, dyspnea, dropsy, renal colic due to calculi, palpitation of heart, nephritis, &c.—*Dose*:  $\frac{1}{1}$ —1 grain (0.015–0.06 Gm.).—Alcohol. extr.,  $\frac{1}{60}$ — $\frac{1}{12}$  grain (0.001–0.004 Gm.).—Fld. extr.,  $\frac{1}{8}$ — $\frac{1}{2}$  ℥ (0.008–0.03 Ce.).—Tinct. (1:10), 5–15 ℥ (0.3–1 Ce.).—*Antid.*, emetics, stomach siphon, cathartics, tannin, opium, coffee, brandy, &c.

**Strychnine Merck.**—Cryst. & powder (25

Alkaloid fr. seed of *Nux Vomica* & o. Loganiaceae.— $\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2$ , or,  $\text{N}(\text{C}_{20}\text{H}_{22}\text{O}_2 \cdot \text{N}_2\text{CO})$ .—Sm., hard cryst., or wh., cryst. powd.; v. bitter taste.—*Sol.* 7 C., 110 A., 6,700 W. at 15° C.; 12 boil. A., 2,500 boil. W. (6,400 W., 110 A., 5,500 E., 6 C., 150 B., & 180 amyl. alc. at 25° C.; 3,000 W. at 80° C.; 28 A. at 60° C., U. S. P.).—*Melt.* 268° C.—Bitter Tonic; Excito-motor Stim.; Stomachic. — *Uses*: Intern., palsy, tabes dorsalis, chronic alcoholism, vomiting, dyspepsia, anemia, insomnia, fr. mental over-work, &c.; antidote to chlorof. & chloral poisoning. Poison for rats, mice, foxes, & wolves.—*Extern.*, linim. in palsy, amaurosis, & myopia.—*Doses*:  $\frac{1}{60}$ — $\frac{1}{15}$  grain (0.001–0.004 Gm.) 2–3 t. p. d.—*Max. D.*  $\frac{1}{6}$  grain (0.01 Gm.) single;  $\frac{1}{3}$  grain (0.02 Gm.) p. d.; in dipsomania,  $\frac{1}{120}$ — $\frac{1}{30}$  grain (0.0005–0.002 Gm.) hypoderm.—*Appl.* 0.5–3% oint.—*Antid.*, stomach tube, tannin, emetics, camphor, charcoal, paraldehyde, urethane, potass. bromide, chlorof., hydrated chloral, morphine hypoderm. ( $\frac{1}{3}$  grain [0.02 Gm.]), curare hypoderm., 0.1–0.5% solut. potass. permangan. intern., artif. respir., &c.—*Incomp.* (of all strychnine salts), alkalies, alkali carbonates & bicarbonates, ammonium chloride, benzoates, dichromates, bromides, borax, cyanides, gold chloride, ichthyol, iodides, mercuric chloride, oxalic acid, picric acid, piperazine, potassio-mercuric iodide (not if acacia present), oxidizers, tannic acid, salicylates.—*Caut.* Very poisonous!

**Strychnine Acetate Merck** (34

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{C}_2\text{H}_3\text{O}_2$ .—Sm., wh. cryst.—*Sol.*, sl. W.—*Uses*, *Doses*, &c.: As of the alkaloid.

do.—*Solution.*—N. F.

Aqu. solut. cont. 0.21 Gm. strych. acetate, 3.5 Ce. dil. acetic acid, 25 Ce. alc., & 1 Ce. comp. tr. cardamom in 100 Ce.

**Strychnine Arsenate Merck** (34

$\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2 \cdot \text{H}_3\text{AsO}_4 + \frac{1}{2}\text{H}_2\text{O}$ .—Wh., cryst. powd.; v. bitter taste.—*Sol.* 14 W., more eas. hot W.—Tonic; Alter.; Antituberc.—*Uses*: Tuberculosis, skin dis., malarial affect., &c.; us'y hypoderm. 0.5% in liq. paraffin; of this 1–15 ℥ (0.25–1 Ce.) may be injected per day.—*Dose*  $\frac{1}{60}$ — $\frac{1}{15}$  grain (0.001–0.004 Gm.) several t. p. d.—*Antid.* & *Incomp.*: As of strychnine alkaloid.

**Strychnine Arsenite Merck** (34

$(\text{C}_{21}\text{H}_{22}\text{N}_2\text{O}_2)_2 \cdot \text{HAsO}_2$ .—Wh., cryst. powd.—*Sol.*, sl. W.—Tonic; Alter.; Antiper.—*Uses*: Remit. & intern. fever, dyspep., tuberculous, skin dis.,

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Ac.* — *Dose*  $\frac{1}{100}$  grain (0.001–0.004 Gm.) several t. p. d.

**Strychnine Bisulphate Merck** (30)  
 $C_{21}H_{22}N_2O_2 \cdot H_2SO_4 \cdot 2H_2O$  — Wh. crystalline — *Sol.* W.

**Strychnine Cacodylate**  
Wh., cryst. powd. — *S.* 750 W. at 15° C.; 15 A. at 60° C. — *Dose*  $\frac{1}{100}$  grain (0.002–0.02 Gm.)

**Strychnine Camphorate Merck** (150)  
 $C_{21}H_{22}N_2O_2 \cdot C_{10}H_{16}O_4$  — Colorl. cryst. — *Sol.* W. — Tonic. — *Uses, Dose*, &c.: As of the alkaloid.

**Strychnine Citrate Merck** (150)  
 $C_{21}H_{22}N_2O_2 \cdot C_6H_5O_7$  — Wh. cryst. — *Sol.* W. — *Uses, Dose*, &c.: As of the alkaloid.

**Strychnine Glycerinophosphate Merck** (50)  
Wh., cryst. powd. — *Sol.* W. — *Uses, &c.*: As of the alkaloid.

**Strychnine Hydrobromide Merck** (50)  
 $C_{21}H_{22}N_2O_2 \cdot HBr$  — Wh. need. — *Sol.* 55 W. — Tonic; *Sed.* — *Uses*: Nerve affect., chronic alcoholism & insom. from over-work. — *Dose*  $\frac{1}{60}$ – $\frac{1}{12}$  grain (0.002–0.005 Gm.) 2–3 t. p. d.

**Strychnine Hydrochloride Merck** (35)  
 $C_{21}H_{22}N_2O_2 \cdot HCl \cdot 1\frac{1}{2}H_2O$  — Wh., efflores. need. — *Sol.* 40–50 W. — *Uses, Doses, &c.*: As of the alkaloid.

**Strychnine Hypophosphite Merck** (40)  
Wh., cryst. powd. — *Sol.* W. — Tonic; Tissue Builder. — *Uses*: Tuberc. affect., in scrof., & in wasting dis. gen'ly. — *Dose*  $\frac{1}{60}$ – $\frac{1}{12}$  grain (0.002–0.005 Gm.).

**Strychnine Iodate Merck** (400)  
 $C_{21}H_{22}N_2O_2 \cdot IIO_3$  — Colorl. need. — *Sol.* W. — Tonic. — *Uses*: Paralysis, anesthesia, &c.; chiefly hypoderm. — *Dose*  $\frac{1}{10}$  grain (0.006 Gm.) hypoderm. (this dose should not be exceeded).

**Strychnine Lactate Merck** (100)  
 $C_{21}H_{22}N_2O_2 \cdot C_3H_5O_3$  — Wh., cryst. powd. — *Sol.* W. — *Uses, Doses, &c.*: As of the alkaloid.

*Strychnine methylammonium Hydroxide*. — see **Methylstrychnine**

*Strychnine methylammonium Iodide*. — see **Methylstrychnine Iodide**

**Strychnine Nitrate Merck**. — Cryst. & powd. (35)  
 $C_{21}H_{22}N_2O_2 \cdot HNO_3$ . — Groups of silky need., or powd. — *Sol.* 90 W. at 15° C.; 3 boil. W.; 5 boil. A. (42 W., 120 A. at 156° C., 60 G. at 25° C.; 8 W. at 80° C.; 60 A. at 60° C.; insol. E., U. S. P.). — *Uses, Doses, &c.*: As of the alkaloid. The salt most frequently used in Europe.

do. Merck. — Highest Purity, free fr. brucine (50)

**Strychnine Oleate**. — 2%  
Strychnine in oleic acid. — *Sol.* E., & oleic acid. — Tonic. — *Uses*: *Extern.*, admin'g strychnine.

*Strychnine Orthoalphaminobenzoate*. — see **Strychnine Saccharinate**

**Strychnine Phenolsulphonate Merck** (200)  
(See Jones Sulphophenolate & Sulphophenolate)  
 $C_{21}H_{22}N_2O_2 \cdot C_6H_4OHSO_3$  — Wh., cryst. powd. — *Sol.* W., A.

**Strychnine Phosphate Merck** (35)  
 $C_{21}H_{22}N_2O_2 \cdot H_3PO_4 \cdot 9H_2O$  — Wh., cryst. powd. — *Sol.* 1 W. — *Uses, Dose*, &c.: As of the alkaloid.

**Strychnine Saccharinate**  
*Strychnine Orthoalphaminobenzoate* (— Amino salt of saccharin & strychnine —  $C_{21}H_{22}N_2O_2 \cdot C_6H_4SO_3 \cdot COONH_2$ ) — Wh. powd. — *Uses*: This comp. of strychnine is sweet in t. of bitter, used in all cases as the alkaloid, & in doses abt. one-third larger.

**Strychnine Salicylate Merck**. — Cryst. (40)  
 $C_{21}H_{22}N_2O_2 \cdot C_7H_5O_3$  — Wh., cryst. powd. — *Sol.* W., A. — *Uses, Doses, &c.*: As of the alkaloid, espec. advantageous in rheum. & chorea.

**Strychnine Sulphate Merck**. — Cryst. & powd. (25)  
 $C_{21}H_{22}N_2O_2 \cdot H_2SO_4 \cdot 6H_2O$  — Wh., odorl. prisms, or wh. powd.; v. bitter taste; cryst. efflores. in dry air. — *Sol.* 50 W., 26 G. at 15° C.; 109 A.; 2 boil. W.; 8.5 boil. A.; (31 W., 65 A., 325 C. at 25° C.; 6 W. at 80° C.; 20 A. at 60° C.; insol. E., U. S. P.). — *Melt.* 200° C. when anhydrous. — *Uses*: The salt most frequently prescribed in the U. S. Its action & uses differ but sl'y fr. those of the alkaloid. — *Dose*  $\frac{1}{60}$ – $\frac{1}{12}$  grain (0.002–0.005 Gm.). — *Caution*. Keep in well-stop. vials.

*Strychnine Sulphocarbolate*. } — see **Strychnine**  
*Strychnine Sulphophenate*. } **Phenolsulphonate**

**Strychnine & Zinc Hydriodide**  
 $C_{21}H_{22}N_2O_2 \cdot HI \cdot ZnI_2$  — Sm., wh. cryst.; yellow on expos. — *Sol.* W. — *Caution*. Keep in the dark.

*Strychnos Ignatia*. — see **Ignatia**

**Stypticin** (130)  
(Cotarnine Hydrochloride Merck). — Hydrochloride of oxidation product of narcotine —  $C_{12}H_{15}NO_4 \cdot HCl$ , or,  $(C_{12}H_{15}O)(CH_2)_2O_2 \cdot C_2H_5CH_2CH_2CH(OH)N \cdot CH_3 \cdot HCl$ . — Yellow cryst. — *Sol.*, eas. W., A. — Styptic; Hemostat.; Analg.; *Sed.* — *Uses*: Hemorrhages of any source, but especially functional dysmenor. & menor. of puberty, & climacteric period, uterine subinvolution after delivery & abortion, also vesical hemor. as well as all profuse, uterine hemor. Also effective in nose bleed, & in bleeding following tooth extraction. — *Dose*  $\frac{1}{2}$ – $1\frac{1}{2}$  grains (0.03–0.1 Gm.) 5–6 t. p. d. in capsules or pearls; in dysmenor. & menor.,  $\frac{3}{4}$  grain (0.05 Gm.) 4–5 t. p. d. — *Inf.* (urgent cases):  $1\frac{1}{2}$  grains (0.1–0.25 Gm.) in 10% solut. — *Extern.*, as styptic, pure or in strong solut., or in 30% gauze or cotton.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Stypticin Tablets.—Sugar-coated**

Each contains  $\frac{3}{4}$  grain (0.05 Gm.) stypticin.  
—*Uses*, &c., As of stypticin.

do.—**Hypodermic**

**Styptol Knoll**

(130)

(Cotarnine Phthalate).— $C_6H_4(COOH)_2 \cdot (C_{12}H_{15}NO_4)_2$ .—Yellow, microcryst. powd.—*Sol.*, eas. W.—*Stypt.*—*Uses*: Hemorrhages.—*Dose*  $\frac{3}{4}$  grain (0.05 Gm.) 3–5 t. p. d. in tabl.

**Styracin Merck.—Cryst., white**

(Cinnamyl, or Cinnyl, Cinnamate).—*Constit.* of storax.— $C_{18}H_{16}O_2$ , or,  $C_6H_5 \cdot C_3H_4 \cdot C_9H_7O_2$ .—Wh., or faint yellowish need.—*Sol.* 3 E., 20 A., benzin.—*Melt.* 41° C.—*Antisep.* & *Stim.*

**Styracol**

(24)

(Guaiacol Cinnamate Knoll; Cinnamyl-guaiacol).—Fr. guaiacol, by cinnamyl chloride w. heat.— $C_{16}H_{14}O_3$ , or,  $C_6H_4OCH_3 \cdot C_6H_5(CH_2)_2CO_2$ .—*Colorl.* need.—*Sol.* A., C., acetone; alm. insol. W.—*Melt.* 130° C.—*Antisep.*; *Germic.*—*Uses*: *Intern.*, tuberculosis, chronic vesical catarrh, diar., dysent., gonorr., &c.—*Extern.*, wounds & ulcers.

**Styrax.—U. S. P.**

(Storax; Oriental Sweet Gum).—Balsam obtained fr. wood & inner bark of Liquidambar orientalis, Miller. Hamamelidaceae.—*Habit.*: Asia Minor.—*Etymol.*: Arabic "asstrak," styria drops, *i.e.*, a plant yielding a resinous exudation. Lat. "liquidus," liquid, & Arabic "ambar," amber, *i.e.*, the fresh styrax resembles liquid amber in color.—*Sol.*, warm A.; insol. W.—*Constit.*: Styrol (styrene; styrolene),  $C_8H_8$ ; cinnamic acid; styracin (cinnamyl cinnamate),  $C_9H_7(C_9H_7O_2)$ ,  $\alpha$ - &  $\beta$ -storesin,  $C_{36}H_{38}O_3$ ; phenylpropyl cinnamate,  $C_6H_5(C_9H_7O_2)_2$ ; ethyl cinnamate; ethyl vanillin.—*Stim.*; *Expector.*; *Diur.*; *Antisep.*; *Disinf.*—*Uses*: Particularly in scabies.—*Techn.*, in microscopy for imbedding (diatoms); in fumigating pastilles & powders; in perfumery.—*Dose* 10–30 grains (0.6–2 Gm.), usually as tinct.

**Styrene Merck**

(120)

(Styrol; Styrolene; Cinnamene [or, -ol]; Phenylethylene; Vinylbenzene [or, -ol]).—*Constit.* of liquid storax.— $C_8H_8$ , or,  $C_6H_5 \cdot CH_2 \cdot CH_2$ .—H'ly refractive, yellowish, oily liq.; arom. odor.—*Sp. Gr.* 0.925 at 0° C.—*Misc.* A., E.—*Boil.* 140–145° C.—*Opt.* inactive.

**Styrene (Meta-) Merck**

(200)

(Metastyrol).—Polymer of styrene, by heat.— $(C_8H_8)_n$ .—*Colorl.*, glassy, transp. solid; odorl.; tastl.—*Sol.*, sl. boil. E.; insol. A.

*Styrol.* } —see **Styrene**

*Styrolene.* }

**Styrone Merck.—Cryst.**

(60)

(Cinnamic, Cinnamyllic, Styrylic, or Phenylallylic, Alcohol).—Fr. styracin w. aq. solut. KOH, by distil.— $C_9H_{10}O$ , or,  $C_6H_5 \cdot CH_2 \cdot CH$ .

$CH_2OH$ .—Wh. need., or cryst. mass; hyacinth odor.—*Sol.* A., E., benzin, G.—*Melt.* 30–35° C.—*Boil.* 250° C.—*Deodor.* & *Antisep.*—*Uses*: 12.5% glycerin solut. for deodor. purposes.—*Caut.* Turns dark-colored on expos. to light.

**Styrone Merck.—Liquid**

(30)

Fr. styracin, by conc. solut. of KOH.—Yellow, oily, h'ly refractive liq.; odor of hyacinth.—*Misc.* A., E., benzin, &c.—*Boil.*, abt. 250° C.—*Uses*: Perfumery.

**Subcutin**

(Paraphenylsulphonic-acid Ethyl Ester of Paraminobenzoic Acid).— $C_2H_5COO \cdot C_6H_4 \cdot NH_2 \cdot SO_3 \cdot H \cdot C_6H_4 \cdot OH$ .—Wh., cryst. powd.—*Sol.* 100 cold, & 40 hot, W.—*Loc.* Anesthetic.—*Uses*: As of anaesthesin.—*Appl.* 12.5% solut. in physiol. salt solut.

**Suberin Merck**

(20)

Substance, not yet definitely known chemically, incrusting cork cells.—Fr. bark of Quercus suber (Cork Oak).—Sm. pieces resembling cork.—*Insol.* in usual solvents.

**Sublimine**

(10)

(Mercury Ethylenediaminesulphate; Ethylenediamine Mercuric Sulphate).— $HgSO_4 \cdot 2(CH_2 \cdot NH_2)_2 \cdot 2H_2O$ .—Abt. 44% Hg.—Wh. cryst.—*Sol.*, eas. W., G.; sl. A.—*Surg.* Disinf. & *Antisep.*—*Uses*: Instead of corros. sublimate in syphilis, skin diseases, gynecology, ophthalmology, otology, &c.—*Appl.*, vaginal douche, 1:500–1000 solut.; collyria, 1:3000–5000 solut.

**Succinamide Merck**

(75)

Diamide of succinic acid.— $C_4H_5N_2O_2$ , or,  $C_2H_4 \cdot (CO \cdot NH_2)_2$ .—*Colorl.* need.—*Sol.*, sl. W.; eas. boiling W.—*Melt.* 243° C.

*Succinic Anhydride.*—see (Acid) **Succinic Anhydride**

**Succinimide Merck.—Cryst.**

(50)

Fr. succinic anhydride, by dry  $NH_3$  gas.— $C_4H_5NO_2$ , or,  $(COCH_2)_2NH$ .—*Colorl.* need.—*Sol.* W., A., E.—*Melt.* 125–126° C.—*Boil.* 287–288° C.—*Antisep.*—Used in form of mercury compound (q. v.).

*Succinonitrile.*—see **Ethylene Cyanide**

**Succinyl Chloride Merck**

(50)

(Succinyl Dichloride).— $C_4H_3O_2Cl_2$ , or,  $COCl \cdot CH_2 \cdot CH_2 \cdot COCl$ .—Fum., h'ly refractive liq.—*Sp. Gr.* 1.412 at 15° C.—*Boil.* 190° C.

*Succinyl Oxide.*—see (Acid) **Succinic Anhydride**

*Succinyl Peroxide.*—see **Alphozone**

**Succisa**

(Devil's Bit; Devil's Root; Radix Morsus Diaboli).—Root of Succisa pratensis (Scabiosa hibernica, L.). Moquin-Tandon. Dipsacae.—*Habit.*: Europe.—*Astring.*—*Uses*: *Extern.*, in metritis, & for gargles in throat diseases.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

## Sucrol

(Dulcin; Valerian. Paraphenylsulfonamide. Para-ethoxyphenylurea. — Fr. paraphenetician. Ty. potius. ex. val.). & in a way.  $\text{C}_{12}\text{H}_{10}\text{N}_2\text{O}_2$  or  $\text{NH}_2\text{C}_6\text{H}_4\text{NHCOCH}_2\text{OC}_6\text{H}_4\text{OH}$ . — Sugar root, a sweet taste; 200 times as sweet as cane sugar. — *Sol.* L., 25 A., 800 W., 150 boiling W. — *Melt.* 173–174° C. — *Uses.* Sweetening for bitter rem., &c.

*Sucro.* — see **Saccharose**

*Sacupira.* — see **Bowdichia**

*Sacuba Bark.* — see **Plumiera**

## Sudan Brown. — Fat dye

(Pigment Brown). — Diazo-comp. from alphanaphthylamine, w. alphanaphthol. — Brown powd. — *Sol.* A., E., fats, oils, &c.

*Sudan Red.* — see **Magdala Red**

## Sudan Red III. — Fat dye

(Aminonazobenzeneazobetanaphthol). — Diazo-comp. from aminoazobenzene, w. betanaphthol. —  $\text{C}_{22}\text{H}_{18}\text{N}_4\text{O}$ , or  $\text{C}_6\text{H}_5\text{N}_2\text{C}_6\text{H}_4\text{N}_2\text{C}_{10}\text{H}_7\text{OH}$ . — Brown powd. — *Sol.* A., E., B., petroleum ether, oils, fats, &c. — *Uses.* Coloring fats, &c.; also in micro-techn. as stain for zoological, pathologico-anatomical, & vegetable objects, like wax, cutin, suberin, resin, contents of lactiferous ducts, &c., which are colored red, while cellulose membrane remains uncolored.

## Sudan Yellow Merck

(12

(Anilineazobetanaphthol). — Brick-red powd. — *Sol.* A., w. orange-yellow color; insol. W. — *Uses.* Coloring spirit lacquers & oils.

## Sudan Yellow G. — Fat dye

(Metachoxyazobenzene; Anilineazoresorcinol). —  $\text{C}_{12}\text{H}_{10}\text{N}_2\text{O}_2$ , or  $\text{C}_6\text{H}_5\text{N}_2\text{C}_6\text{H}_3(\text{OH})_2$ . — Brown powd. — *Sol.* A., fats, oils, &c.

## Suet

(Mutton Suet). — Purified internal fat of abdomen of Ovis Aries (Sheep). L. —  $\text{Wh.}$ , solid fat; sl. odor; taste, bland if fresh, but rancid if long expos. — *Sol.* 2 B., 44 boil. A., 60 E.; insol. W., cold A. — *Melt.* 45–50° C. — *Uses.* Pharmaceutical. — *Caut.* Keep well closed.

*Sugar, Cane.* — see **Saccharose**

*Sugar, Meal.* — see **Inosite**

*Sugar of Lead.* — see **Lead Acetate**

*Sugar of Milk.* — see **Milk Sugar**

## Sulfonal

(27

(Sulphonmethane [U. S. P.]; Diethylsulphonemethylmethane). — Fr. anhydrous acetone, by anhydrous ethylmercaptan w. a stream of dry hydrochl. acid gas. —  $(\text{C}_2\text{H}_5\text{SO})_2\text{C}:(\text{CH}_3)_2$ . — Colorl., cryst. powd. — *Sol.* 65 A., 110 dil. A., 135 E., 500 W., at 15° C.; (360 W., 47 A., 45 E., 16 C.) at 25° C.; 15 boil. W., 2 boil. A.; sol. B., U. S. P.). — *Melt.* 125–126° C. — *Boil.* 300° C. — Hypn.; Sed.; Antihidrotic. — *Uses.* Insom., epilepsy,

night tw., Hysteria. w. op. usually, heart disease where (but not) in cor., heart &c. No action on liver in these points. — Do not give if kidneys are badly affected. — *Dose.* 15–45 grains (1–3 Gm.) 3 or 4 times before retiring, in dose, with, or without op. — *Max. D.* 60 grains (4 Gm.) p. d. — *U. S. P.* 1–4 t. l., stimulants, stomach alpin and bicarbonate, 75–120 grains (5–8 Gm.) daily.

## Sulfopyrine

(Antipyrine; Para-aminobenzenesulphonate). — Wh., non-hygrosc. powd. — *Sol.* E., W. — *Uses.* Goryza, indom., &c. — *Dose.* 15 grains (1 Gm.).

## Sulphaldehyde Merck

(100

(Thioaldehyde; Thioacetaldehyde). — Colorl. liq., penetrating, nauseous smell. — *Sol.* A., E., C.; alm. insol. W. — Hypnotic. — *N. B.* Three times as active as paraldehyde (Luisin).

## Sulphaminol Merck

(20

(Thiosylphenylamine). —  $\text{C}_9\text{H}_9\text{NSO}$ , or  $\text{NH}(\text{C}_6\text{H}_4\text{OH})\text{C}_6\text{H}_4\text{S}$ . — Greenish-yellow powd.; odorl.; tastel. — *Sol.* A.; acetic acid; alkalies; insol. W. — *Melt.* 155° C. — Antiseptic. — *Uses.* Intern., in cystitis. — *Extern.*, instead of iodoform. By insufflation in laryngeal phth., as dust, powd. on wounds, syph. sores, &c. — *Techn.*, in foul brood in bee culture. — *Dose.* 3–4 grains (0.2–0.25 Gm.) single; 15 grains (1 Gm.) p. d.

*Sulphanilic Acid-Naphthylamine Sulphate Paper.*

— see **Griess's Paper, Red**

*Sulphin.* — see **Primuline Yellow**

*Sulphobenzeneazodimethylaniline.* — see **Dimethyl-amidoazobenzenesulphonate**

## Sulphobenzide Merck

(50

(Diptynylsulphone). — Fr. benzene, by fum. sulphuric acid. —  $\text{C}_{12}\text{H}_{10}\text{SO}_2$ , or  $(\text{C}_6\text{H}_5)_2\text{SO}_2$ . — Monocl. prisms or plates. — *Sol.* E.; v. sl. W. — *Melt.* 128–129° C. — *Boil.* 376° C.

## Sulphocarbaniide Merck

(20

(Thiocarbaniide). — By boil. aniline w. alc. &  $\text{CS}_2$ . —  $\text{C}_8\text{H}_7\text{N}_2\text{S}$ , or  $\text{CS}_2\text{NH}(\text{C}_6\text{H}_5)_2$ . — Cryst. leaflets. — *Sol.* A., E. — *Melt.* 153° C.

*Sulphonethylmethane Merck.* — U. S. P. (13

(Trional; Methylsulfonyl; Diethylsulphonemethylmethane). — By passing dry hydrochl. acid into a mixt. of anhydrous mercaptan & methyl ethyl ketone & oxid'g the prod. —  $\text{C}_8\text{H}_{18}\text{S}_2\text{O}_3$ , or  $(\text{CH}_3(\text{C}_2\text{H}_5)\text{C}:(\text{SO}_2\text{C}_2\text{H}_5)_2$ . — Colorl., lustr., cryst. powd.; odorl.; character. taste. — *Sol.* 195 W. at 25° C.; more read. boil. W. — *Melt.* 76° C. — Hypnotic; Sed. — *Uses.* For producing sleep, espec. where there is no pain. Free from cumulative action of sulfonal, because completely decomp. in the syst. Espec. valuable in agrypnia due to morphine, cocaine or hydrated chloral. — Contraindic. in cardiac diseases, & in disturbances of compensation. — *Dose.* 15–30 grains (1–2 Gm.). — *Max. D.* 45 grains (3 Gm.) single; 120 grains (8 Gm.) p. day.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Sulphonmethane Merck.** — *U. S. P.* (11)

(Sulfonal; Diethylsulphonedimethylmethane).—Fr. anhydrous acetone, by anhydrous ethylmercaptan w. a stream of dry hydrochl. acid gas.— $(C_2H_5SO_2)_2 : C : (CH_3)_2$ .—Colorless, cryst. powd.—*Sol.* 360 W., 47 A., 45 E., 16 C. at 25° C.; 15 boil. W., 2 boil. A.; *sol.* B.—*Melt.* 125–126° C.—*Boil.* 300° C.—Hypn.; Sed.; Antihidrotic.—*Uses:* Insom., epilepsy, night sw., hicough, whoop-cough, heart diseases where hypnotic required, chorea, &c.—No action on heart in therapeutic doses. Do not give if kidneys do not act normally.—*Dose* 15–45 grains (1–3 Gm.)  $\frac{3}{4}$  hour before retiring, in beer, wine, or simple elixir.—*Max. D.* 60 grains (4 Gm.) p. d.—*Antid.*, stimulants, stomach siphon; sod. bicarbonate, 75–120 grains (5–8 Gm.) daily.

*Sulphourea.*—see **Thiocarbamide**

**Sulphur Merck.**—Cryst. (3)

*Etymol.*: Fr. Lat. "sulphur." — S. — Yellow, transp. cryst.—*Sol.*, carbon disulphide.—*Melt.*, abt. 115° C.—Antiseptic.

**do.**—Crude (1)

(Brinestone).—Yellow, solid, cylindrical rolls.—*Uses:* Techn.

**do. Merck.**—Precipitated, pure.—*U. S. P.* (1)  
(Lac Sulphuris; Milk of Sulphur).—Fr. slaked lime & sulphur boiled together, & pptd. by hydrochl. acid.—Fine, amorph., pale-yellow powd.—Superior to other forms in certain applications.—*Lax.*; *Alter.*; *Antisep.*; *Diaph.*—*Uses:* *Intern.* & *Extern.*, as washed sulphur.—*Dose* 30–120 grains (2–8 Gm.).—Best preparation for use in cosmetics.

**do. Merck.**—Sublimed.—*U. S. P.* (1)

(Flowers of Sulphur).—Fine, yellow powd.; faint odor.—*Uses:* Pharm., pyrotechny, & techn. in matches, gunpowder, sulphuric & sulphurous acids, sulphurizing wine & beer vats, fire-extinguishers, destroying Oidium Tuckeri, making casts & molds, cements, coal-tar dyes, sulphur blacks, niello, sulphurized tar, &c.

**do.**—Washed—*U. S. P.* (1)

Fr. sublimed sulphur by treatm. w.  $NH_4OH$ , followed by washing w. W.—S.—Fine, yellow, dry powd.; odorl.; tastel.—*Sol.*, benzin, oil turpentine; E., C., B.; boil. alkal. solut., carbon disulphide.—*Melt.*, abt. 115° C.—*Lax.*; *Alter.*; *Antisep.*; *Diaph.*—*Uses:* *Intern.*, rheum., catarrh, asthma, hemorrhoids, sciatica, & skin dis.—*Extern.*, 1:2–6 oint. in scabies & other skin affect., rheum., &c.—*Dose* 60–190 grains (4–12 Gm.) as lax.; as diaphor., & in catarrh, 8–15 grains (0.5–1 Gm.) several t. p. d.—*Incomp.*, never triturate w. any chlorate.

**Sulphur Bromide Merck** (10)

(Sulphur Mono- or Subbromide). —  $S_2Br_2$ . — Yellow liq.; turns red in air.—*Sol.*, carbon disulphide.—Sp. Gr. 2.628 at 1° C.

**Sulphur Chloride Merck** (1)

(Sulphur Subchloride; Sulphur Monochloride). —  $S_2Cl_2$ .—Amber to yellowish-red, fum., oily liq.; penetrating odor, which causes tears & affects the breathing.—Sp. Gr. 1.68 at 0° C.—*Sol.*, carbon disulphide, B., A., E.; in W. w. decomp.—*Boil.* 139° C.—Readily dissolves sulphur, hence used in vulcanizing rubber, working gutta-percha, manuf. vulcanized oils intended for printing inks & varnishes, working sugar-cane juices, combined w. carbon disulphide or olive oil in cements, manuf. factice, &c.—*Caut.* Keep well stoppered.

**do. Merck.**—Camphorated (60)

Mixt. sulphur chloride & camphor.—*Uses:* Techn., in vulcanizing rubber.

*Sulphur Dioxide.*—see **Acid Sulphurous**

**Sulphur Iodide Merck** (6)

(Sulphur Subiodide).—By fusing together 80 parts iodine w. 20 parts sulphur. The preparation is not sulphur moniodide,  $S_2I_2$ , & it is a question whether it contains the latter or is purely a mechanical mixt.—Grayish-black masses; metallic luster; odor of iodine.—*Sol.*, abt. 60 G.;  $CS_2$ , alm. insol. W.; A., E., & solut. KI dissolve the iodine, & leave the sulphur (*U. S. P.*).—*Antisep.*; *Alter.*—*Uses:* *Intern.*, glanders, scrof., & chronic skin dis.—*Extern.*, in oint. of 5–10% w. lard or petrolatum for ecz., psoria, prurigo, &c.—*Dose* 1–2 grains (0.06–0.12 Gm.).—*Caut.* Keep glass stoppered & cool.

*Sulphur Monobromide.*—see **Sulphur Bromide**

*Sulphur Monochloride.*—see **Sulphur Chloride**

*Sulphur Subbromide.*—see **Sulphur Bromide**

*Sulphur Subchloride.*—see **Sulphur Chloride**

*Sulphur Subiodide.*—see **Sulphur Iodide**

*Sulphur Trioxide.*—see **(Acid) Sulphuric Anhydride**

*Sulphur Yellow S.*—see **Naphthol Yellow S**

*Sumach.*—see **Rhus Glabra**

**Sumbul.**—*U. S. P.*

(Musk Root).—Dried rhizome & root of undeterm. plant, probab. of the family Umbelliferae (prob'ly fr. Euryangium Sumbul [Ferula S., Hooker], Kaufm.).—*Habit.*: Central Asia; East Indies.—*Etymol.*: "Sumbul" is the Persian name of the drug, & signifies a spike, referring to the appearance of the flowering stem.—Transverse segments of variable length, & rarely more than 4 in. (10 Cm.) diam.; extern., dark-brown, wrinkled, & annulate; smaller pieces w. smooth silver-gray periderm; short-fibrous fract.; light & spongy; numerous brownish-yellow resin reservoirs; odor strong & musk-like; bitter taste.—*Constit.*: Angelic acid (sumbulic acid); volat. oil; resin; valeric acid; methylecrotonic acid; bitter extractive.—*Tonic*; *Stim.*:

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Gaiaccol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Cathart.* Nervin. Antispasmod. — *Uses:* Hysteria, hypochondria, neurasthenia, neuralgia, chlorosis, &c. — *Tinct.*, in perfumery, & in manuf. of liquors. — *Dose:* 10-60 grains (0.6-4 Gm.), usually as tinct. — *Alcohol. extr.*, 2-5 grains (0.12-0.3 Gm.). — *Fld. extr.*, 10-30  $\text{m}$  (0.5-2 Ce.). — *Tinct.*, 15-60  $\text{m}$  (1-4 Ce.).

*Summer Savory.*—see **Satureja**

*Sundew.*—see **Drosera**

*Sunflower.*—see **Helianthus**

*Suprarenal Capsule, Extract.*—see **Extract Suprarenal Capsule**

**Suprarenal Gland Merck.**—Dried, powder (200 Fr. the suprarenal gland of cattle & sheep.—1 part dried gland = abt. 5 parts fresh organ.—*Uses:* Addison's disease, diabetes insipidus, in all diseases due to loss of vasomotor tone, e.g., menopause, neurasthenia; & also cyclic albuminuria, cardiac affections, & hay fever.—*Dose* 3-5 grains (0.2-0.3 Gm.) 2-3 t. p. d., 1 hr. aft. meals; in diab., 8 grains (0.5 Gm.) 3 t. p. d.

### Suprarenin

Active principle fr. suprarenals.— $\text{C}_9\text{H}_{13}\text{NO}_3$ .—Grayish-wh., cryst. powd.—*Sol.*, v. diffie. W., A., E.—*Melt.* 210-212° C.—Vasoconstrictor; Hemostat.—*Uses:* Comb. w. local anesthetics in conjunct., iritis, glaucoma, & operations on eye; operations on nose; hay-fever; operations on larynx; in Schleich's infiltration anesthesia; hemor. fr. bladder or urethra; strictures; uterine, gastric, & intest. hemorrh., &c.—*Doses:* Ear & nose: solut. 1:1,000-5,000; eye: solut. 1:5,000-10,000; vesical hemor.: solut. 1:10,000.—*Inf.*: *Hypoderm.*,  $\frac{1}{120}$  grain (0.0005 Gm.) (as hydrochloride or borate) = 15  $\text{m}$  (1 Ce.) 1:2,000 solut.—*Caut.* Keep fr. light.

### Suprarenin Borate

Wh. cryst.—1.3 Gm.=1 Gm. pure suprarenin.—*Sol.*, eas. W.—Vasoconstrictor.—*Uses:* Hemorrhages, in conjunction w. loc. anesthetics in operations on eye.—Also marketed in sterile solution corresponding to a 1:1000 solut. suprarenin.

*Swallow-wort.*—see **Vincetoxicum**

*Sweet Clover.*—see **Melilotus**

*Sweet Flag.*—see **Calamus**

*Sweet Sunach.*—see **Rhus Aromatica**

*Sword Grass or -Lily.*—see **Gladiolus**

*Sykose.*—see **Benzosulphinide; Saccharin**

*Symphorol L.*—see **Lithium & Caffeine Sulphonate**

*Symphorol N.*—see **Sodium & Caffeine Sulphonate**

*Symphorol S.*—see **Strontium & Caffeine Sulphonate**

### Symphytum

(Comfrey; Radix Consolidæ; Blackwort; Bruisewort) — Root of *Symphytum officinale*, L. Boraginaceæ. Asperifoliceæ — *Habit*: Europe; Asia; natur. in U.S.—*Etymol.*: Grk. "symphytos," united, grown together, referring to the corolla, which is tubular-campanulate.—Root is spindle-shaped, branched, often more than 1 in. (25 Mm.) thick & 12 in. (30 Cm.) long; smooth & blackish extern.; wh., fleshy & juicy intern.; when dry, firm & horny, & dark within.—*Constit.*: Asparagin; tannin; pectin; sugar.—*Astring.*: Demule.; *Expector.*—*Uses:* Coughs, colds, & pulmon. affect.—*Dose:* Fld. extr., 30-60  $\text{m}$  (2-4 Ce.).

*Synantherin.*—see **Inulin**

**Syntonin Merck** (250 (Parapeptone; Muscle Fibrin). — Conversion product of albumose by dil. HCl.—Yellowish powd.—*Sol.*, dil. HCl; alkali carbonates.

**Syringin Merck** (1500 (Lilacin; Ligustrin; Oxymethylconiferin). — Glucoside fr. bark *Syringa vulgaris*, L. (Lilac), & *Ligustrum vulgare*, L. (Privet).— $\text{C}_{17}\text{H}_{24}\text{O}_6 + \text{H}_2\text{O}$ .—Sm., wh., bulky, tastel. need.—*Sol.* A.; sl. W.—*Antipyr.*; *Antiper.*—*Uses:* Intermittent fevers, & malarial affect.

*Syrup Iron Iodide.*—see **Iron Iodide, Syrup**

*Syrup Iron Iodide, Tasteless.*—see **Iron Citrodiodide, Syrup**

**Syrup Mulberry Merck** (1 Mulberry juice, sugar, & suffie. alc. to prevent ferment.—Sl. Astringent.

**Syrup Raspberry Merck** (1 Fr. juice of fresh, ripe raspberries.—Aromatic.—*Uses:* Flavor.

**Syrup Violets Merck** (2 Fr. fresh fls. *Viola odorata*, L.—Demule.; Diur.; Tonic.—*Uses:* Coughs, colds, bronchial affect., pneum., & nephritis.—*Dose* 60-240  $\text{m}$  (4-15 Ce.) or more.

*Syzygium Jambolanum.*—see **Jambul**

## T

### Tabacum

(Tobacco).—Lvs. of *Nicotiana Tabacum*, L. Solanaceæ.—*Habit.*: Central & South America; extensively cultv. in warm temperate & tropical countries.—*Etymol.*: Named for Jean Nicot, a French statesman who introduced tobacco into France in 1560. "Tobacco," fr. "Tabayo," one of the West Indies; or fr. the Mexican province Tabasco, where Europeans first learned to use tobacco.—*Constit.*: Nicotine,  $\text{C}_{10}\text{H}_{14}\text{N}_2$ ; nicotianin; albumin; gum; resin; tannin; sugar; wax; nicotelline; normicotine.—*Diur.*: Sed.; Emet.; Nar.; Expector.; Antispasm.; Erhine; Antisept.; Sialagogue; Anodyne; Antiparasitic.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



—*Uses*: *Intern.*, in whoop-cough, & chron. asthma. —*Extern.*, in hemorrhoids, neural, tinea capitis, toothache, &c.; also by enema in hernia. —*Doses*:  $\frac{1}{2}$ –5 grains (0.03–0.3 Gm.). —*Alcoh.* extr.,  $\frac{1}{10}$ –1 grain (0.006–0.06 Gm.). —*Fld.* extr.,  $\frac{1}{2}$ –5  $\text{M}$  (0.03–0.3 Cc.). —*Antid.*, tannin, emetics, strychnine (physiol. antid.); alcohol, ammonia, digitalis, belladonna, brandy, &c.

### Tacamahac

Resinous substance obtained fr. var. species of *Amyris* & *Iceia* (Protium). Burseraceae. —*Habit.*: West Indies; South America. —*Etymol.*: “*Tacamahaca*” is the East Indian name of the drug. —*Constit.*: Volat. oil; resin. —*Uses*: *Extern.*, in ointments & plasters; also as ingredient in fumigating mixtures.

### Tachia

(Caferana; *Radix Quassia paraensis*). — Root of *Tachia guianensis*, Aublet. Gentianeae. —*Habit.*: South Africa, Brazil, Guiana. —*Etymol.*: “*Tachi*” is the name given to the plant by the Galibis (of Guiana), & it signifies an ant, as the insect is often found on the stem of the plant. —*Constit.*: Caferanin; tachinin. —*Tonic*; Antipyr.; Prophyl. in malaria. —*Dose* 15 grains (1 Gm.) in powd., 1:4 tinct., or 1:60 infus.

*Tachiol* = *Silver Fluoride*. — see **Silver Fluoride**

*Tag Alder*. — see **Alnus Serrulata**

### Tagulaway

(Cebur or Cebú). — Bark of *Parameria vulneraria*, Radlkof. Apocynaceae. —*Habit.*: Philippine Islands. —*Etymol.*: Fr. Grk. “*para*,” beside, & “*meros*,” thigh, referring to the two adjacent, thigh-shaped fruits. “*Cebú*,” fr. the island Cebú, where it is found. —*Constit.*: Caoutchouc; arom. resin. —*Uses*: For preparing the cebur or cebú balsam, also known as tagulaway balsam, used as a vulnerary.

*Taka-Diastase*. — see **Diastase, Taka-**

*Tamarac* (or -ak). — see **Larix**

*Tamarind*. — *U. S. P.*

(Tamarind Pulp). — Preserved pulp of the fruit of *Tamarindus indica*, L., Leguminosae. Casalpiniaceae. —*Habit.*: East Indies; Africa; natur. in West Indies. —*Etymol.*: Fr. Arabic “*tamer*,” date palm, & “*Hindi*,” India, *i. e.*, Indian date. Hebrew “*tamar*,” palm tree, & “*Hindi*,” India. —*Constit.*: Tartaric, citric, & malic acids; potassium bitartrate; sugar; pectin. —*Lax.*; Refrig. —*Dose* 30–300 grains (2–20 Gm.).

### Tanacetum

(Tansy; Tanzy). — Lvs. & tops of *Tanacetum vulgare*, L. Compositae. —*Habit.*: Asia; Europe; naturalized in N. America (especially eastern U. S. & Canada). —*Etymol.*: Fr. Grk. “*tanaos*,” long, large, & “*akeomai*,” to heal. —*Constit.*: Volat. oil; tanacetin,  $\text{C}_{10}\text{H}_{16}\text{O}_4$ ; resin; tannin; mucilage; fat; sugar; malic acid (tanacetic acid?); tartaric, citric, & oxalic acids. — Flowers

contain volat. oil & tanacetin. —*Stim.*; Tonic; Anthelmin.; Diur.; Lamen.; Diaphor.; Abortifac.; —*Uses*: Locally for bruises, sprains, rheum., &c. — Flowers are febrifuge. —*Dose* 15–60 grains (1–4 Gm.) in powd., infus., or fld. extr.

### Tanacetum Balsamita

(Costmary). — Lvs. & tops of *Tanacetum balsamita*, L. Compositae. —*Habit.*: Southern Europe. —*Etymol.*: See preceding. “*Balsamita*,” fr. Grk. “*balsamon*,” balsam, referring to the arom. odor of the plant. —*Constit.*: Volat. oil. —*Uses*: Vermifuge.

*Tang-Kui*. — see **Eumenol**

*Tangle*. — see **Laminaria**

*Tannal*. — see **Aluminum Tannate**

*Tannal, Soluble*. — see **Aluminum Tannotartrate**

### Tannalbin

(17)

(Tannin Albuminate Exsiccated Knoll). — Light-brown, odorl., tastel. powd.; 50% tannin. —*Insol.* in water. —*Intest.* Astring.; Antidiar. Reported not acted upon in stomach, but slowly & equally decomposed in the intestines; causes no gastric disturbance, while gently yet firmly astringent on entire intestinal mucosa; without by- or after-effects. —*Uses*: Acute dysent., chron. intestinal catarrh, diar., in phth., &c. —*Doses*: 15–60 grains (1–4 Gm.) hourly until effect is noticeable, then 3–5 t. daily, in tabl. or powd., with water, continued in diminished dose a few days after diarrhea ceases. *Nurslings* receive 5–8 grains (0.3–0.5 Gm.),  $\frac{1}{2}$  hourly at first, then 4 t. daily, in gruel or other mucilaginous vehicle; *children*, up to 15 grains (1 Gm.) per dose.

do. — **Veterinary**

(13)

*Uses*: Diar. in domestic animals. —*Doses*: Foals 2–4 dr. (8–15 Gm.) p. d.; calves, 45–75 grains (3–5 Gm.) several t. p. d.; horses & cattle, 5–8 dr. (20–30 Gm.) in divided doses of 90–150 grains (6–10 Gm.).

*Tannigen*. — see **Diacetyltannin**

*Tannin*. — see **Acid Tannic**

*Tannin Albuminate*. — see **Tannalbin**

*Tannin-formaldehyde*. — see **Tannoform**

### Tannoform

(4)

(Tannin-formaldehyde Merck). — Condensation prod. of formaldehyde & tannin. —  $\text{C}_{29}\text{H}_{30}\text{O}_{18}$ . — Loose, reddish powd. —*Sol.* in al. or alkaline liquids; insol. in W. —*Melt.* 230° C. —*Siccat.* Antisept.; Deod. —*Uses*: Hyperidrosis, bromidrosis, balanitis, pruritus vagina, chron. ulcer of leg, decubitus, burns, soft chancre, weeping eczema, ozena, &c. — Applied pure or in 25–50% triturations w. talcum in hyperidrosis; in intertrigo as 10% oint. or soap; in hemorrhoids as 5% supposit. —*Intern.* (seldom used; tannalbin is best adapted), as intest. astring. in chron. diar. & gastroenteritis. —*Dose* 4–15

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



grams (0.25-1 Gm.) 4-4 t. p. d.—*Acter Med.*, chron., especially infectious, diar., in domestic animals.—*Doses*. Cattle, 5-10 dr. (20-40 Gm.) p. d.; calves, 60 grains (1 Gm.) several t. p. d.; also extern. as antisept.; astring., &c., for recent wounds.—In dentistry in cement.

**Tannopine** (15)

(Hexamethylenamine-tannin).—Light-brown, odorl., tasteless powd.—*Sol.*, in dil. alkalis, insol. A., W., E., or dil. acids.—87% tannic acid & 13% hexamethylenamine.—*Intest.* Astring., & disinfect.—*Dose* 15 grains (1 Gm.) several t. daily; children, 3-8 grains (0.2-0.5 Gm.).

**Tanocoll** (10)

Tannin-gelatin comp.—Grayish-wh., odorl., tasteless powd.—*Sol.*, alkalis; insol. W., acids.—*Intest.* Astring.—*Dose* 10-15 grains (0.6-1 Gm.).

**Tanosal**

(Creosol; Tannosal; Creosote Tannate).—By heating beechwood creosote w. tannic acid & phosphorus oxychloride.—Dark-brown, v. hygroscopic powd.; creosote odor & taste.—*Sol.* W., A., G., acetone; insol. E.—Astring.; Antisept.—*Uses*: In inflam. of muc. membr. of larynx & bronch. tubes.—*Dose* 45 grains (3 Gm.) p. d.

**Tanret's Reagent.**—For albumen

Solut. 3.32 Gm. potass. iodide, 1.35 Gm. mercuric chloride, & 20 Ce. acetic acid in W. to 60 Ce.—Gives a white ppt. w. albumen.—Also ppt's peptone & alkaloids.

**Tansy Ragwort.**—see **Senecio Jacobæa**

**Tantalie Anhydride.**—see **Acid Tantalie**

**Tantalum Merck** (7000)

*Etymol.*: Named for Tantalus of mythology, because of the belief held at the beginning of this century that tantalum was incapable of being saturated by acids, even in excess.—Metal.—Ta.—Black powd.; probably cont. also tantalum oxide.—*Uses*: In electric lamps.

**Tantalum Chloride Merck.**—Sublimed (5000)

TaCl<sub>5</sub>.—Light yellow, cryst. powd.; decomp. in moist air.—*Sol.*, absol. A.; warm solut. KOH. Decomp. by W.—*Caut.* Keep well stoppered.

**Tantalum Pentoxide.**—see **Acid Tantalie**

**Tantalum & Potassium Fluoride Merck** (600)

TaK<sub>2</sub>F<sub>7</sub>.—Wh., silky need.—*Sol.*, diffie. W.

**Tanzy.**—see **Tanacetum**

**Tapioca**

(Brazilian Arrow-Root; Mandioc; Cassava Starch).—Fecula of the root of *Manihot utilisima*, Pohl. Euphorbiaceae.—*Habit.* Brazil; Antilles.—*Etymol.*: Portuguese "tapioca," fr. the West Indian name of the plant, "typyoka."—*Constit.*: Starch.—*Uses*: Nutrient.

**Tar.**—U. S. P.

(Pix Liquida).—Empyreumatic product obt. by destructive distil. of wood of *Pinus palustris*, Miller, & other spec. of *Pinus*, Coniferae.—*Habit.*: U. S.—Thick, dark, viscous mass, peculiar, terebinth. odor, heavier than W.; empyreum, sharp taste.—*Sol.* A., E., C., fixed & volat. oils, & solutions of caustic alkalis; sl. W.—*Constit.*: Resin; turpentine; empyreumatic oils.—*Uses*. Intern. bronch. affect.; colds; fevers; diar., & diseases of gen.-urin. organs.—*Extern.* skin diseases.—*Dose* 30-60 M. or grains (2-4 Ce. or Gm.), usually as glycerole or syrup.

**Tar Camphor.**—see **Naphthalene**

**Taraxacum.**—U. S. P.

(Dandelion; Lion's Tooth).—Dried root of *Taraxacum officinale*, Weber (T. *Taraxacum*, Karst.), Compositae, collected in autumn.—*Habit.*: Europe; natur. in North America.—*Etymol.*: Grk. "tarassos, tarassin," to move, to disturb, referring to its disturbing action on the bowels.—*Constit.*: Taraxacin; taraxacerin, C<sub>28</sub>H<sub>46</sub>O; resin; levulin; inulin; pectin. Flowers contain resin & a bitter subst'ce.—Aper.; Tonic; Diur.; Stomachic; Deobstruent.—*Uses*: Liver diseases w. dyspep. & chronic splenic congestion.—Fresh lvs. somet. used as salad.—*Doses*: 30-120 grains (2-8 Gm.).—Aqu. extr., 15-60 grains (1-4 Gm.).—Fld. extr., 1-2 fl. dr. (4-8 Ce.).

**Taraxacum Juice Merck** (2)

(Dandelion Juice).—Fr. fresh root *Taraxacum officinale*, Weber; preserv. w. alc.—Bitter Tonic; Lax.; Alter.—*Uses*: Atonic dyspep.; liver dis.; "blood purifier," &c.—*Dose* 1-4 fl. dr. (4-15 Ce.).

**Tarragon**

(Biting Dragon).—Whole plant *Artemisia Dracunculus*, L. Compositae.—*Habit.*: Southern Europe; Asia; also widely cultv.—*Etymol.*: "Tarragon," a corrupt form of "dragon." "Dracunculus" is the Lat. diminutive form of "draco," dragon, referring to the serpentine form of the root. "Artemisia," fr. Grk. "Artemis," the Roman Diana, in whose honor *Artemisia Absinthium* was named.—*Constit.*: Volat. oil; tannin; bitter principle.—*Uses*: Antiscorbutic; Anthydropic. Also used as a spicy addition to mustard & vinegar.

**Tartar, Borated.**—see **Potassium & Sodium Borotartrate**

**Tartar Emetic.**—see **Antimony & Potassium Tartrate**

**Tartar, Soluble.**—see **Potassium Tartrate**

**Tartarlithine**=**Lithium Bitartrate.**—see **Lithium Bitartrate**

**Tartrated Antimony.**—see **Antimony & Potassium Tartrate**

**Tartarated Iron.** } —see **Iron & Potassium Tartrate, Ferric**  
**Tartarized Iron.** }

**Tasi.**—see **Chlorostigma; Morrhena**

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Taurin Merck** (1500)  
(Aminoethansulphonic Acid; Aminoisethionic Acid).—Decomp. prod. taurocholic acid.— $C_2H_7NSO_3$ , or,  $CH_2(NH_2)CH_2SO_3H$ .—Colorl. cryst.; glass-like luster.—*Sol.* W.; *insol.* A., E.

**Taxine Merck.—Pure** (2000)  
Alkaloid fr. lvs. *Taxus baccata*, L.— $C_{37}H_{51}NO_{10}$ .—Wh. scales.—*Sol.* A., E., carbon disulphide; sl. W.—*Melt.* 110° C.—*Caut.* Poison!

**Taxus**  
(Yew; Chinwood).—Herb of *Taxus baccata*, L. Taxaceae.—*Habit.*: Europe; northern Africa.—*Etymol.*: Grk. "tassein," to order, referring to the arrangement of the lvs. Or, fr. Grk. "toxon," a bow, as this weapon was frequently made fr. the wood. Lat. "baccata," bearing berries, i.e., the fruit resembles a berry in appearance. — *Constit.*: Taxine; milouin; volat. oil. — *Uses*: Abortifacient; Antiepilep. — *Dose* 1-5 grains (0.06-0.3 Gm.).

**Tayuya**  
Root of *Trianosperma feifolia*, Mart. Cucurbitaceae.—*Habit.*: Brazil; Paraguay.—*Etymol.*: "Tayuya" is the Brazilian name of the drug.—*Constit.*: Resin; trianospermine & trianospermatine (alkaloids); tayuyin (bitter principle). — Antisyphil.; Antihidrotic; Antiepileptic; Febrif.; Antiscrofular; Purgat.; Emetic; Lymphatic Stim.; Alter.—*Uses*: Tert. syph.; dropsy. — *Dose* 5-15 m (0.3-1 Ce.) of 1:5 tinct.

*Tca.*—see *Thea*

*Teaslers' Tea.*—see *Ephedra*

*Tecoma Ipé.*—see *Ipé-tabaco*

*Tellicherry.*—see *Holarrhena*

*Telluric Hydroxide, Dihydrated.* } —see **Acid**  
*Telluric Oxide, Trihydrated.* } **Telluric**

**Tellurium Merck.—Powder & sticks** (300)  
*Etymol.*: Named by Klaproth in 1798 in honor of "the old mother," Tellus.—Non-metallic element.—Te.—Dark-gray powd., burning in the air with a blue flame when heated; or bluish-wh., brittle sticks w. metallic luster.—*Sol.*, nitric acid. — *Melt.* 455° C.—No techn. uses.

**Tellurium Bichloride Merck** (750)  
(Tellurium Dichloride).— $TeCl_2$ .—Black, amorphous mass.—*Melt.* 175° C.—Decomp. by W.

**Tellurium Sulphide Merck** (1200)  
 $TeS_2$ . — Black, amorph. powd. — *Insol.* W. & acids.

*Tellurous Hydroxide or Tellurous Oxide, Hydrated.*—see **Acid Tellurous**

**Terebene Merck.—Optically inactive** (1)  
Mixture of several terpenes, chiefly dipentene & terpinene, w. some cymol & camphene, obtained by the action of sulphuric acid on oil of turpen-

tine & subsequent rectification. —  $C_{10}H_{16}$ . — Colorl. or sl'y yellowish liq.; thyme-like odor; resinifies when exposed to air & light.—*Sp. Gr.* 0.862-0.866 at 15° C.; (0.860-0.865 at 25° C., U. S. P.).—*Sol.*, sl. W.; 3 A., E., glacial acetic acid, carbon disulphide.—*Boil.* 156-180° C. (160-170° C., U. S. P.).—Expector.; Antisep.; Astring.; Antifermentative.—*Uses*: *Intern.*, in chronic bronch., flatulent dyspep., gen.-urin. dis., emphysema, phth., bronch. dyspnea, &c. — *Extern.*, in 1% solut. in uterine cancer, gangr. wounds, skin dis., &c. In phth. affect. it is given by inhalation (13 fl. dr. [50 Ce.] per week). — *Dose* 4-6-20 m (0.25-0.36-1.3 Ce.) w. syrup or on sugar.—*Caut.* Keep well stoppered & cool.

*Terebentene.*—see **Pinene, Levogyrate**

*Terminalia Chebula.*—see **Myrobalan**

**Terpene Dihydrochloride Merck.—Cryst.** (25)  
(Dipentene Dihydrochloride; Turpentine Dihydrochloride).—Fr. solut. of limonene in glacial acetic acid, or fr. terpin hydrate, by gaseous HCl.— $C_{10}H_{16}Cl_2$ , or,  $C_{10}H_{16} \cdot 2HCl$ .—Wh., cryst. mass.—*Sol.* A., E., C., B.—*Melt.* 50° C.

**Terpene Hydriodide Merck** (50)  
(Terpin or Terpene Iodide; Dipentene Hydroiodide).— $C_{10}H_{16} \cdot HI$ .—Red-brown liq.—*Sol.* A., E., C.

**Terpene Hydrochloride Merck** (20)  
(Artificial Camphor; Pinene Hydrochloride; Turpentine Monohydrochloride; Turpentine Camphor). —  $C_{10}H_{16} \cdot HCl$ . — Wh., cryst. mass, resembl. camphor; turpentine & camphor odor. — *Sol.* A.; *insol.* W.—*Melt.*, abt. 125° C.—*Boil.*, abt. 205° C.—Antiseptic.—*Uses*: *Intern.*, phth.; & check secret. of saliva & perspiration.—*Extern.*, w. carbolic acid; local anesth., abort. boils, prevent suppurat., & skin dis.—*Dose* 15-30 grains (1-2 Gm.).

*Terpene Iodide.*—see **Terpene Hydriodide**

**Terpilene**  
(Terpinylene).—Fr. heating terpene dihydrochloride with W. & subsequently treating w. dil. sulphuric acid. —  $C_{10}H_{16}$ . — Clear liq. — *Sp. Gr.* 0.852 at 15° C.—*Boil.* 176-178° C.

*Terpilene Dihydrochloride.*—see **Eucalyptol**

*Terpinol.*—see **Terpineol**

**Terpin Hydrate Merck.—Highest Purity, Medicinal, cryst. & powd.** (1)

(Dipenteneglycol). — Hydrate of the diatomic alcohol terpin. Fr. oil of turpentine w. alc. by dil. nitric acid.— $C_{10}H_{18}O_2 \cdot (CH_2)_2(C_2H_5)_2 + H_2O$ . — Colorl., lustr., rhombic prisms; sl'y bitter taste.—*Sol.* B., 10 A., 100 E., 200 C., 200 W. at 25° C.; 1 boil. glacial acetic acid; 2 boil. A.; 32 boil. W.;  $CS_2$ . — *Melt.* 116-117° C. — *Boil.* 258° C.—Expector.; Antisep.; Diur.; Diaph.—*Uses*: Bronch. affect., whoop-cough, throat affect., hemostat. in hemoptysis in incipient

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



tuberculosis, neural, chron. nephritis, gen.-urin. dis., &c.—*Dose*: Expectant, 3–6 grains (0.2–0.36 Gm.); diur., 10–15 grains (0.6–1 Gm.) several t. p. d.—*Max. D.* 15 grains (1 Gm.) single; 45 grains (3 Gm.) p. day.—*Children*, in whoop-cough, 8–15 grains (0.5–1 Gm.) single; 45 grains (3 Gm.) p. d.

*Note*.—The exceedingly high purity & perfect solubility of this preparation render it peculiarly suitable for use in all cases where proper results are desired.

*Terpin Iodide*.—see **Terpene Hydriodide**

**Terpineol Merck** (5)  
(*Terpinolol*; "Lilacine").—By heating terpin hydrate w. phosphoric acid of Sp. Gr. 1.120.— $C_{10}H_{17}OH$ .—Colorl. liq.; odor of lilacs.—Sp. Gr. 0.936–0.938 at 15° C.—*Sol.* A., E.—*Boil.* 218° C.—*Aromatic*.—*Uses*: Perfume, & to mask odor of iodoform.

**Terpinol Merck** (8)  
Mixt. of principles having the compos.  $C_{10}H_{16}$  &  $C_{10}H_{14}O$ , produced by act. dil. mineral acids on terpin hydrate; the fraction boiling at 168° C.—Oily liq.; odor of hyacinths.—Sp. Gr. 0.852 at 15° C.—*Sol.* A., E.—*Bronchial Stim.*; *Antisept.*; *Diur.*—*Uses*: Diminish expectoration & lessen odor in phth., in hemopt. in tuberculosis, coughs, colds & bronch. affect.—*Techn.*, perfumery, & soap manuf.—*Dose* 2–5 ℥ (0.12–0.3 Cc.).

*Terpinylenc*.—see **Terpilene**

*Terra Alba*.—see **Kaolin**

*Testa Preparata*.—see **Oyster Shell, Prepared**

**Testaden** (26)  
Lactose trituration of dried extr. of testes of bull. 1 part = 2 parts fresh organ.—*Uses*: Impotence, neurasthenia, & spinal & nervous dis.—*Dose* 15–30 grains (1–2 Gm.).

**Testes Merck**.—Dried, powder (25)  
Fr. testes of steer, by freeing fr. fat & drying.—1 part = 6 parts fresh testes.—*Tonic*.—*Uses*: Hysteria, hystero-epilepsy, neurasthenia, affections of brain & spinal cord, diabetes, prostatic hypertrophy, & as aphrodisiac.—*Dose* 10–30 grains (0.6–2 Gm.) p. d.

*Tetra Paper*.—see **Tetramethylparaphenylene-diamine Paper**

**Tetrabromophenolphthalein Merck** (100)  
Fr. alcoh. solut. of phenolphthalein, by bromine in acetic acid.— $C_{20}H_{10}Br_4O_4$ , or,  $C_6H_4Br_2OCO(C_6H_4Br_2OH)_2$ .—Colorl., cryst. powd.—*Sol.*, in alkalis w. violet color; E.; v. sl. A.—*Melt.* 220–230° C. w. decomp.—*Uses*: Indicator in alkalimetry (acids = colorless; alkalis = violet).

**Tetrabromophenolphthalin Merck** (3000)  
By brominating phenolphthalein.— $C_{20}H_{12}Br_4O_4$ , or,  $C_6H_4CO_2HCH(C_6H_4Br_2OH)_2$ .—Wh., cryst. powd.—*Sol.* A., E., B.,  $CS_2$ .—*Melt.* 205° C.

*Tetrachlorethene* } —see **Carbon Dichloride**  
*Tetrachlorethylene* }

*Tetrachlorethylendichloride* — see **Carbon Trichloride**

*Tetrachloromethane*.—see **Carbon Tetrachloride**

*Tetrachloroquinone*.—see **Chloranil**

**Tetraethylammonium Iodide Merck** (100)  
(*Tetraethylammonium Mordantide*).—Fr. ethyl iodide, by triethylamine— $C_4H_{11}NI$ , or,  $(C_2H_5)_4NI$ .—Wh. to yellowish cryst.—*Sol.* W., A.

**Tetraethylammonium Hydroxide Merck**.—10% Solution (40)  
 $C_4H_{21}NO$ , or,  $N(C_2H_5)_4OH + nH_2O$ .—Strly. alk., colorl. solut.; saponifies fats, & imparts soapy feel. to skin; bitter, burn, taste.—*Antirheumatic*.—*Uses*: Uric-acid solvent, & in artie. rheumat.—*Dose* 5–20 ℥ (0.3–1.3 Cc.) well diluted.

*Tetrahydroanaphthylamine Hydrochloride*.—see **Thermin**

*Tetrahydroparamethyloxyquinoline* or *Tetrahydroparaquinanisol* Salts.—see under **Thal-line**

**Tetrahydroquinoline Merck** (75)  
Fr. quinoline, by reduct.— $C_8H_9N$ , or,  $C_8H_9(CH_2CH_2)(NH.CH_2)$ .—Brownish liq.—*Sol.* A., E.; sl. W.—*Boil.* 244° C.

**Tetrahydroquinoline (Iso-) Merck** (1000)  
(*Tetrahydroisoquinoline*).—Fr. reduct. of isoquinoline.— $C_9H_{11}N$ , or,  $C_6H_4(CH_2CH_2)(NH.CH_2)$ .—Colorl. to yellow liq.—*Sol.* W., A., E.—*Boil.* 232–233° C.

**Tetrahydroquinoline (Iso-) Hydrochloride Merck**.—Cryst. (1500)  
 $C_9H_{11}N.HCl$ .—Cryst. laminæ.—*Melt.* 195–197° C.

*Tetraiodofluorescein*.—see **Iodeosine**

*Tetraiodophenolphthalein*.—see **Nosophen**

*Tetraiodophenolphthalein-Sodium*.—see **Antinosin**

*Tetraiodopyrrol*.—see **Iodol**

**Tetramethylammonium Bromide Merck** (50)  
 $N(CH_3)_4Br$ .—Colorl., deliq. mass.—*Sol.* W.

**Tetramethylammonium Chloride Merck** (75)  
 $N(CH_3)_4Cl$ .—Deliq., colorl. cryst.—*Sol.* W.

**Tetramethylammonium Hydroxide Merck** (350)  
 $N(CH_3)_4OH$ .—Deliq. cryst.—*Sol.* W., A.

**do. Merck**.—10% Solution (50)  
1 part  $N(CH_3)_4OH$  dissolved in 9 parts W.—Strongly alk. liq.; read. absorbs  $CO_2$  fr. air.—Caustic.

**Tetramethylammonium Iodide Merck** (50)  
React.-prod. ammonia in methyl alcoh. w. methyl iodide & heat.— $N(CH_3)_4I$ .—Prismat., yellow cryst.—*Sol.* W.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Tetramethylbenzene* (or, -zol).—see **Durene**

**Tetramethyldiaminobenzophenone Merck** (30)  
(Michler's Ketone).—Fr. dimethylaniline, by carbonyl chloride.— $C_{17}H_{20}N_2O$ , or,  $CO(C_6H_4N(CH_3)_2)_2$ .—Wh. to greenish leaflets.—*Sol.* A., E., warm B.—*Boil.*, above  $360^\circ C.$ , with decomp.

*Tetramethylethyleneglycol*.—see **Pinacone**

**Tetramethylparaphenylenediamine** (2500)

By heating dimethylparaphenylenediamine w. hydrochl. acid & methyl alc.— $C_{10}H_{16}N_2$ , or,  $N(CH_3)_2.C_6H_4.N(CH_3)_2$ .—Cryst. leaflets.—*Sol.* A., E.—*Melt.*  $51^\circ C.$ —*Boil.*  $260^\circ C.$ —*Uses*: Reag. for ozone, hydrogen peroxide & ozonizers (Wurster's reagent).

**Tetramethylparaphenylenediamine Hydrochloride Merck** (2500)

$C_{10}H_{16}N_2.2HCl$ .—Sm. cryst.—*Sol.* W., A.

**Tetramethylparaphenylenediamine Paper**

(Wurster's Ozone Paper [Blue]).—Wh. paper, charged w. tetramethylparaphenylenediamine; w. color scale & directions.—*Uses*: Detecting hydrogen peroxide & ozone, which, in neutral or acetic acid soluts., develop an intense bluish-violet color; & ozonizers, as turpentine, pine-wood, &c.

*Tetramethylthionine Hydrochloride*.—see **Methylene Blue**

*Tetranitroanthraquinone*.—see **Acid Aloetic**

*Tetranitrochrysazin*. } —see **Acid**

*Tetranitrodioxyanthraquinone*. } **Chrysaminic**

*Tetranitrol*.—see **Erythrol Tetranitrate**

*Tetraoxydiphenyl*.—see **Diresorcinol**

*Tetraoxyphthalophenonanhidride*.—see **Fluoresceïn**

**Tetronal** (60)

(Diethylsulphonedimethylmethane).—By passing dry hydrochl. acid into a water-free mixt. of ethyl sulphhydrate & diethylketone.— $C_9H_{20}S_2O_4$ , or,  $(C_2H_5)_2C:(SO_2C_2H_5)_2$ .—Colorl., lustr. laminae; camphoraceous, bitter taste.—*Sol.*, eas. A., E., 450 W.—*Melt.*  $85^\circ C.$ —*Hypn.*; *Sed.*—*Uses*: Insomnia.—*Dose* 15–30 grains (1–2 Gm.).—*Max.* D. 60 grains (4 Gm.) p. day.

*Tetryl Formate*.—see **Butyl, Iso-, Formate**

**Teucrin Mosetig-Merck**

Purified aqu. extr. of *Teucrium Scordium*, L., sterilized in sm. sealed glass tubes each containing abt. 45 m (3 Cc.).—*Antisept.*; *Irritant.*—*Uses*: *Extern.*, abscesses, fungous adenitis, actinomycosis, & lupus. Injected hypoderm. produces local active hyperemia & organic reaction that arrests development of these dis. Apply near seat of dis.—*Dose* 45 m (3 Cc.).

**Teucrium**

(Gerinander; Cat Thyme; Herb Mastich; Syrian Herb Mastich; Herba Mari veri).—Whole plant

*Teucrium Marum*, L. Labiatae.—*Habit.*: Mediterranean region.—*Etymol.*: "Teucrium" is the Grk. name of the plant. "Marum," fr. Hebrew "mar," bitter.—*Constit.*: Volat. oil; resin; bitter principle; camphor-like substance.—*Tonic*; *Digestive*; *Diur.*; *Diaph.*; *Emmen.*—*Uses*: *Intern.*, in atonic dyspep.—*Extern.*, as sternut.—*Dose* 20–40 grains (1.3–2.6 Gm.) in powd. or infus.

*Thallic & Thallous Salts*.—see under **Thallium**

**Thalline Periodide Merck** (110)

(Periodothalline Sulphate; Thalline Periodosulphate).—Iodine addition prod. of thalline sulphate.—Black cryst.—*Sol.* A.—*Uses*: Carcinoma.—*Dose* 3–4 grains (0.2–0.25 Gm.) in pill, every 2–3 hrs. Where much dryness & lack of functional activity of skin exists,  $\frac{1}{60}$  grain (0.001 Gm.) pilocarpine hydrochlor. is added to each dose.

*Thalline Periodosulphate*.—see **Thalline Periodide**

**Thalline Salicylate Merck** (100)

(Tetrahydroparaquinanisol Salicylate).—Fr. salicylic acid, by tetrahydroparamethyloxyquinoline.— $C_{10}H_{13}NO.C_7H_5O_3$ .—Reddish, cryst. powd.—*Sol.* A.—*Antipyr.*; *Antisep.*; *Antirheum.*—*Uses*: Typhoid fever, gonorr., rheum., gout, &c.—*Dose* 3–8 grains (0.2–0.5 Gm.).

**Thalline Sulphate Merck** (60)

(Tetrahydroparaquinanisol or Tetrahydroparamethyloxyquinoline Sulphate).—Fr. tetrahydroparaquinanisol, by dil. sulphuric acid.— $(C_{10}H_{13}NO)_2.H_2SO_4 + 2H_2O$ .—Wh. needl., or cryst. powd.; cumarin-like odor; acid, saline, bitterish, arom. taste; turns brown on expos.—*Sol.* C., E., 7 W., 100 A., 0.5 boiling W.—*Melt.*, above  $100^\circ C.$ —*Antisep.*; *Antipyr.*; *Hemost.*—*Uses*: *Intern.*, typhoid fever, malarial fever, typhus, &c.—*Extern.*, inj. in 1–2% solut. for gonorrhea. In chronic gonorrhea a 5% solut. in oil is best.—*Dose*: 3–8 grains (0.2–0.5 Gm.). In typhoid the initial dose in progressive thallinization is  $\frac{11}{3}$  grains (0.08 Gm.) every hr., increasing the dose daily by  $\frac{1}{6}$  grain (0.01 Gm.).—*Mar. D.* 8 grains (0.5 Gm.) single; 25 grains (1.6 Gm.) p. day. In progress. thallinization, *Mar. D.* is  $2\frac{1}{2}$  grains (0.15 Gm.) per hr., & 55 grains (3.6 Gm.) p. d.—*Caut.* Keep fr. light.

**Thalline Tannate Merck** (60)

Yellowish-brown powd.—*Sol.* A.—*Uses*, *Doses*, &c.: As of the sulphate.

**Thalline Tartrate Merck** (80)

$C_{10}H_{13}NO.C_4H_6O_6$ .—Wh., flat cryst., or cryst. powd.—*Sol.* 10 W., 300 A.—*Uses*, *Doses*, &c.: As of the sulphate, but somewhat weaker.—*Mar. D.* 8 grains (5 Gm.) single; 25 grains (1.6 Gm.) p. d. In progressive thallinization, *Mar. D.* is 3 grains (0.2 Gm.) single, up to 72 grains (4.8 Gm.) per day.

**Thallium Merck** (60)

*Etymol.*: Fr. Grk. "thallos," a green branch.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



So named by Crookes, who discovered the element in 1861 because of the green flame reaction & the green line in the spectrum afforded by the element.—Metal: Th.—Heavy, soft, easily fusible; bluish-wh. tint; lead-like, metallic luster.—Sp. Gr. 11.8.—*Melt* 283° C.—Thallium & its salts are cumulative poisons, causing extravasation of blood, &c.

**Thallium Acetate Merck** (160)

(Thallous Acetate).— $\text{TiCl}_2\text{H}_2\text{O}_2$ .—Wh., deliq. cryst.—*Sol.* W., A.—*U.* Formerly in syphilis & in night-sweats in phthisis.—*Dose*  $1\frac{1}{2}$ –3 grains (0.1–0.2 Gm.) p. d.—The remedy causes the falling out of the hair.

**Thallium Bromide Merck** (150)

(Thallous Bromide).— $\text{TiBr}$ .—Wh., or yellowish-wh., cryst. powd.—*Sol.*, v. diff. in W.

**Thallium Carbonate Merck** (150)

(Thallous Carbonate).— $\text{Ti}_2\text{CO}_3$ .—Alm. colorl. cryst.—*Sol.* 19 W. at 18° C.; 44 boiling W.

**Thallium Chloride Merck** (150)

(Thallous Chloride).— $\text{TiCl}$ .—Wh., cryst. powd.—*Sol.*, sl. W.—*Uses*: Ac. rheum.—*Dose*  $1\frac{1}{2}$  grain (0.012 Gm.) single;  $1\frac{1}{2}$  grains (0.1 Gm.) p. d.

**Thallium Iodide Merck** (150)

(Thallous Iodide).— $\text{TiI}$ .—Citron-yellow, cryst. powd.—Alm. insol. W.

**Thallium Nitrate Merck** (150)

(Thallous Nitrate).— $\text{TiNO}_3$ .—Colorl. cryst.—*Sol.* W.—*Uses*: Quantitative determination of iodine in pres. of chlorine & bromine; microchem. detect. halogens & certain o. metals (Au, Pt, V, Th, &c.); prepar. thallium test paper; as indicator in titrating zinc.—Fused thallium nitrate has the Sp. Gr. 5, melts at 75° C., & is used in the separation of minerals; also w. potass. chlorate, calomel, & resin for green fire for signalling at sea.

**Thallium Oxide Merck.—Thallic** (150)

(Thallium Peroxide; Thallium Trioxide).— $\text{Ti}_2\text{O}_3$ .—Brownish-black powd.—*Sol.*, acids.—*Uses*: Mixed w. sulphur in manuf. matches.

**Thallium Oxide Merck.—Thalious** (150)

$\text{Ti}_2\text{O}$ .—Black powd.—*Sol.* W., absolute A.—Oxidizes on expos. to air, & becomes insoluble.—The satur. alcoh. solut. of thallium alcoholate ( $\text{TiOC}_2\text{H}_5$ ) has the Sp. Gr. 3.55, & is the heaviest liquid known except mercury.—*Uses*: In manuf. of glass having a high coefficient of refraction for optical purposes, & for artif. gems.

**Thallium Ozone Paper**

Wh. paper charged w. thallous hydroxide.—*Uses*: Test for ozone (brown color); also as indicator.

**Thallium Peroxide.—see Thallium Oxide, Thallic**

**Thallium Sesquichloride Merck** (150)

$\text{TiCl}_3\cdot\text{H}_2\text{O}$ .—Yellowish, v. deliq. cryst.

**Thallium Sulphate Merck** (150)

(Thallous Sulphate).— $\text{TiSO}_4$ .—Colorl. prisms.—*Sol.* W.—*U.* Acute artie rheumat.—Also as thallium paper in ozonometry.—*Dose*  $1\frac{1}{2}$  grain (0.012 Gm.) single;  $1\frac{1}{2}$  grains (0.1 Gm.) p. d.

**Thallium Sulphide Merck** (150)

(Thallous Sulphide).— $\text{TiS}$ .—Micros., bluish-black, lustr. cryst., or powd.—*Sol.*, min. acids.

**Thallium Trioxide.—see Thallium Oxide, Thallic**

**Thanitol.—see Guaethol**

**Thapsia**

(Deadly Carrot).—Root of *Thapsia garganica*, L. Umbellifera.—*Habit*: Mediterranean region.—*Etymol.* Fr. "Thapsos," the island where first discovered (Dioscorides). In the time of Theophrastus it was also found abundantly on the promontory Gargano, hence the name of the species "garganica."—*Constit.*: Resin; thapsic acid,  $\text{C}_{16}\text{H}_{30}\text{N}_4$ .—Irritant; Alter.; Purgat.—*Uses*: Intern., in leanness, chron. lung diseases, sterility, &c.—*Extern.*, rheumat., gout, neural., bruises, erupt., &c.—*Dose*: Fld. extr., 2–10 M (0.12–0.6 Cc.).

**Thea**

(Tea).—Lvs. of *Thea Chinensis*, L. (Camellia Thea, Link; C. theifera, Griffith), & other spec. of *Thea*; Ternstroemiaceae.—*Habit*: China; Japan; cult. in India & other tropical countries.—*Etymol.*: Fr. "tscha," the Chinese name for tea.—*Constit.*: Volat. oil; caffeine (theine); theophylline, tannin; gallic acid; quercetin; boheic acid; adenine.—*Uses*: Stim.; Popular beverage.—*Techn.*, as source of caffeine.

**Thebaine Merck.—Pure, cryst.** (100)

(Paramorphine).—Alkaloid fr. opium.— $\text{C}_{19}\text{H}_{21}\text{NO}_3$ , or,  $(\text{CH}_3\text{O})_2\cdot\text{C}_{14}\text{H}_8\cdot\text{N}(\text{CH}_3)\cdot(\text{CH}_2)_2\text{O}$ .—Wh., lustr., cryst. scales; sharp, styptic taste.—*Sol.* 10 A., 18 C., 20 B., 60 amyl. A., 140 E.—*Melt.* 193° C.—Spinal Convulsant.—*Caut.* Very poison. l

**Thebaine Hydrochloride Merck.—Cryst.** (100)

$\text{C}_{19}\text{H}_{21}\text{NO}_3\cdot\text{HCl}$ .—Colorl. cryst.—*Sol.* 15.4 W. at 10° C.—*Uses*: Neural. & neurasthenia.—*Dose*  $\frac{3}{4}$  grain (0.05 Gm.) grad. increased to 3 grains (0.2 Gm.) single; hypoderm.,  $\frac{1}{6}$  grain (0.01 Gm.).

**Thebaine Tartrate (Acid) Merck.—Cryst.** (100)

(Thebaine Bitartrate).— $\text{C}_{19}\text{H}_{21}\text{NO}_3\cdot\text{C}_4\text{H}_6\text{O}_6 + \text{aq}$ .—Wh., cryst. powd.—*Sol.* W., hot A.

**Theine.—see Caffeine**

**Theobrominat.—see Oil Coriander**

**Theobromine Merck** (18)

(Dimethylxanthine).—Alkaloid fr. seeds *Theobroma Cacao*, L.— $\text{C}_7\text{H}_8\text{N}_4\text{O}_2$ , or,  $\text{CH}_3\text{N}(\text{CO}\cdot\text{HN}\cdot\text{CO}\cdot\text{C}(\text{N}\cdot\text{CH}_3))_2\cdot\text{C}\cdot\text{N}\cdot\text{CH}_3$ .—Microcrist., wh. powd.; bitter taste.—*Sol.* E.; sl. W., or A.; more readily in boil. C.—Diur. Nerve Stim.—Its double salts are preferably used because of their greater

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



solubility.—*Uses*: Cardiac dropsy. Theobromine salts are purely diuretic, & have no action on the heart.—*Dose* 5 grains (0.3 Gm.) 4 t. p. d., the dose being increased by 15 grains (1 Gm.) daily for 4 days, and then reduced to 4–6 doses of 8 grains (0.5 Gm.) each per day.

**Theobromine Acetosalicylate Merck** (100 (Theobromine Acetylsalicylate).— $C_7H_8N_4O_2 \cdot C_9H_7O_4$ .—Wh., cryst. powd.—*Sol.* A.—*Uses* & *Doses*: As of theobromine.

*Theobromine-barium & Sodium Salicylate*.—see **Barutin**

**Theobromine Hydrochloride Merck**.—Cryst. (100  $C_7H_8N_4O_2 \cdot HCl$ .—Wh. cryst.—*Sol.* W. w. decomp.—*Diur.*; Nerve Stim.—*Uses*: About the same as of the double salts of theobromine.

**Theobromine Salicylate Merck**.—True, cryst. (30  $C_7H_8N_4O_2 \cdot C_7H_6O_3$ .—Fine, wh., acid, bitter, perman. need.—*Sol.*, sl. W.—*Uses*, &c.: As of the double salts of theobromine; salt best adapted for use.—*Dose* 15 grains (1 Gm.) in wafers or in powd. w. saccharin.

*Theobromine-sodium Citrate*.—see **Urocitral**

*Theobromine-sodium Iodide*.—see **Iodotheobromine**

*Theobromine & Sodium Acetate*.—see **Agurin**

*Theobromine-sodium & Sodium Salicylate*.—see **Theobromine & Sodium Salicylate**

*Theobromine & Lithium Benzoate*.—see **Uropherin B**

*Theobromine & Lithium Salicylate*.—see **Uropherin S**

*Theobromine & Sodium Acetate*.—see **Agurin**

**Theobromine & Sodium Benzoate Merck** (40 (Theobromine-sodium & Sodium Benzoate).—47% of theobromine.— $NaC_7H_7N_4O_2 \cdot H_2O(?) + NaC_6H_5CO_2$ .—Wh., fine powd.; easily decomp. by expos.—*Sol.*, eas. W.—*Diur.*—*Uses*: Dropsy, nephritis, cardiac diseases.—*Dose* 8–15 grains (0.5–1 Gm.) 3–4 t. p. d.—*Max. D.* 15 grains (1 Gm.) single; 90 grains (6 Gm.) p. day.—*Caut.* Keep fr. contact w. air.

**Theobromine & Sodium Iodosalicylate Rummo-Merck** (40 (Iodotheobromine).—40% theobromine, 21.6% sod. iodide & 38.4% sod. salicylate.—Wh. powd.—*Sol.*, hot W.—Heart Stim.; *Diur.*; Alter.—*Uses*: Chiefly in aortic insufficiency.—*Dose* 4–8 grains (0.25–0.5 Gm.) 2–6 t. p. d. in caps. or wafers.

**Theobromine & Sodium Salicylate Merck** (12 (Theobromine-sodium & Sodium Salicylate).— $C_7H_8N_4O_2 \cdot Na_3 + H_2O(?)$ , or,  $NaC_7H_7N_4O_2 + H_2O(?) \cdot C_7H_7(OH) \cdot CO_2Na$ .—Wh. powd., cont'g abt. 47% theobromine, & abt. 36% salicylic acid.—*Diuret.*—Decomp. on expos.—*Sol.* 2 W.;

insol. C., E.—*Uses*: Heart dis., nephr., espec. of scar. fever, in dyspnea, & coughs.—*Dose* 8–15 grains (0.5–1 Gm.) several t. p. d. in powd. or pill, or diss. in peppermint W.—*Max. D.* 15 grains (1 Gm.) single; 90 grains (6 Gm.) p. d.—*Caut.* Keep fr. air.

**Theobromine & Sodium Sulphate Merck** (40 (Theobromine-sodium & Sodium Sulphate).—Wh. powd.—*Sol.* W.—Abt. 50% theobromine.—*Uses*, &c.: As of other theobromine comp'ds.

### Theobromose

Theobromine-lithium comp. —  $LiC_7H_7N_4O_2$ .—Fine, silky need.—*Sol.*, eas. W.—*Diur.*—*Caut.* Solut. deposits lithium carbonate & theobromine on expos. to air.

### Theocin

(Synthetic Theophylline).—Fine, colorl. cryst.—*Sol.*, eas. warm W.; diff. in cold W. & A.; insol. E.—*Melt.* 268° C.—*Diuret.*—*Dose* 3–6 grains (0.2–0.4 Gm.).

### Theophylline

(Dimethylxanthine).—Alkaloid found with caffeine in tea.— $C_7H_8N_4O_2 \cdot H_2O$ , or,  $CH_3 \cdot N \cdot CO \cdot CH_2 \cdot N \cdot C(N \cdot CH_3) \cdot C(NH) \cdot CO \cdot + H_2O$ .—Wh., cryst. powd.—*Sol.* 180 W. at ord. temp.; 85 W. at 37° C.—*Melt.* 268° C.—*Diur.*—*Uses*: Cardiac affect., nephr., dropsy, &c.—*Dose* 3–8 grains (0.2–0.5 Gm.).—N. B.: A synthetic theophylline is marketed under the name Theocin.

### Theophylline Sodium

(30 Soluble theophylline salt.—*Uses*, *Doses*, &c.: As of theophylline.

### Theophylline & Sodium Acetate

(50  $C_7H_7N_4O_2 \cdot Na \cdot CH_3COONa + H_2O$ .—Wh. powd.—*Sol.* 25 W.—*Diur.*—*Dose* 5–8 grains (0.3–0.5 Gm.).

*Theophylline & Sodium Formate*.—see **Thephorin**

### Theophylline & Sodium Salicylate

(22  $C_7H_7N_4O_2 \cdot Na \cdot C_6H_4(OH)COONa$ .—Wh., cryst. powd.—*Sol.* 14 W.—*Diur.*—*Uses*: Cardiac dis., ascites, dropsy, nephritis; renal sclerosis, tumor, & atrophy; angiosclerosis.—*Dose* 25 grains (1.6 Gm.) in div. doses.

### Thephorin

(Theophylline & Sodium Formate).— $C_7H_7N_4O_2 \cdot Na \cdot HCOONa + H_2O$ .—Wh. powd.—*Sol.* W.—*Diur.*—*Dose* 8–15 grains (0.5–1 Gm.) 3 t. p. d.

### Thermifugin

(Sodium-Methyltrihydroxyquinoline Carbonate).— $C_9H_8(CH_3) \cdot NCOONa$ .—Sl'y yellowish-wh. powd.—*Sol.* W.—Antipyr.—*Dose* 4 grains (0.26 Gm.).

### Thermin Merck

(200 (Tetrahydrobetanaphthylamine Hydrochloride).— $C_{10}H_{11} \cdot NH_2 \cdot HCl$ .—Colorl. to reddish-wh. cryst. powd.—*Sol.* W., A.; amylc A.—*Melt.* 237° C.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



—Mydriatic.—*Uses*: Increases body-temperature (abt. 4.5° C.)

**Thermodin** (50)

(Acetylparaethoxyphenylurethane Merck).— $C_{15}H_{17}NO_6$  or,  $C_6H_4(C_2H_5O)NCO_2C_2H_5.CO.CH_3$ .—Colorl., odorl. cryst.—*Sol.*, sl. W.—*Melt.* 86–88° C.—*Antipyr.*; *Antisep.*; *Analg.*—*Uses*: Typhoid fever, pneum., pleurisy, influenza, tuberculosis, erysip., angina pectoris, &c. Temp. redact. begins in one hour after taking, & reaches its lowest in 4 hrs. In neural. large doses are required.—*Doses*: *Antipyr.*, 8–12 grains (0.5–0.75 Gm.); *antineural.*, 20–25 grains (1.3–1.6 Gm.).

**Thial**

(Hexamethylenamine Oxymethylsulphonate).—Wh., odorl. powd.—*Sol.*, eas. W.—*Antisep.*—*Uses*: Vulnery in 0.5–1% solut.; wash & irrigat. in 2.5–5 1000 solut.; in hyperidrosis 1–2% solut.; also for disinf. spittoons, &c.

**Thialdin Merck** (40)

$C_6H_{13}NS_2$ , or,  $NH(CH_2CH_2S)_2CH_2CH_3$ .—Monocl. prisms; character. odor.—*Sol.* W., A., E.—*Melt.* 43° C.—Heart Stimulant.

**Thiersch's Carmine Oxalate**

5 Gm. carmine, 5 Gm. ammonia, 5 Ce. W., mixed w. solut. 4 Gm. oxalic acid in 80 Ce. W., & 120 Ce. A. added.—*Uses*: As stain.

*Thioacetaldehyde.* }  
*Thioaldehyde.* } —see Sulphaldehyde

*Thioallylic Ether.*—see Allyl Sulphide

**Thiocarbamide Merck** (30)

(Sulphourea or Thiourea).— $CH_3N_2S$ , or,  $CS(NH_2)_2$ .—Wh., lustr. cryst.; bitter taste.—*Sol.* 11 W.—*Melt.*, constant at 149° C. after fusing & solidifying.—*Sp. Gr.* 1.406 at 15° C.—*Uses*: Photo. fixing agent, & to remove stains from negatives.

*Thiocarbanil.*—see Oil Phenylmustard

*Thiocarbanilide.*—see Sulphocarbanilide

*Thiochromogen.*—see Primuline Yellow

**Thiocol** (38)

(Potassium Guaiacolsulphonate).— $C_6H_3(OCH_3)OH.SO_3K$ .—White, odorless powd.; faint bitter, then sweet, taste.—*Sol.* W. or syrup; sl. A.; insol. E.—*Antituber.*; *Anticatarrhal.*—*Uses*: Phth., chron. coughs & catarrhs, serof., typhoid, &c.—*Dose* 5–20 grains (0.3–1.3 Gm.) 3 t. p. d., in solut. with orange syrup, or as tablets.

**Thioform** (15)

(Basic Bismuth Dithiosalicylate).— $2(S.C_6H_3[OH]COOBiO) + (Bi_2O_3 + 2H_2O)(?)$ .—Yellowish-brown powd.; 72% bismuth oxide.—*Antisep.*—*Uses*: *Extern.*, instead of iodoform in veter. med., as dusting powd. in wounds, erysipelas, eezema, otitis, conjunctivitis, keratitis, &c.

**Thiol.—Liquid** (8)

Mixt. of sulphurized hydrocarbons fr. commercial gas-oils, sulphurized & neutralized w. ammonia.—Dark-brown liq.—*Sol.* W.—*Sp. Gr.* 1.08 at 15° C.—*Uses*: Erysipelas & o. skin dis. in 5–20% oint. or aqu. solut.

**do.—Powder** (20)

Dark-brown powd.; faint bituminous odor.—*Sol.* W.—*Uses*: As dusting powd. in skin dis.

**Thionine Ehrlich-Merck.—Reagent** (75)

(Lauth's Violet).—Oxidation prod. of imidamidothiodiphenylimide,  $C_{12}H_{10}N_2SCl$ .—Greenish-black powd.; metallic luster.—*Sol.* W. w. violet color.—*Uses*: Micros., for stain. nuclei & in meta-chromatic investigations (mucin, cells, mucus).

**Thiophene Merck.—Synthetic** (120)

Constit. of coal tar.— $C_4H_4S$ , or,  $S(CH_2CH_2)_2$ .—Colorl., oily liq.—*Sp. Gr.* 1.072 at 15° C.—*Boil.* 81° C.—*Antisepic.*

**Thiophene Biniodide Merck** (130)

75.5% of iodine, & 9.5% of sulphur.— $C_4H_2I_2S$ .—Yellow cryst.—*Sol.* A.; E., C.—*Melt.* 10.5° C.—*Antisepic.*—*Uses*: Mastitis, wounds, erysip., bursitis, carcinoma, &c.; applied as a dusting powd., & as 10% gauze.—*Caut.* Keep well stop'd.

**Thiophene Tetrabromide Merck** (150)

By complete bromination of thiophene.— $C_4Br_4S$ .—Yellow, cryst. powd.—*Sol.* A.—*Melt.* 112° C.—*Boil.* 326° C.—*Antisepic.*

*Thiophosphoric Anhydride.*—see Phosphorus Pentasulphide

*Thiophosphorus Anhydride.*—see Phosphorus Trisulphide

**Thiosinamine Merck** (12)

(Allyl Sulphocarbamide; Allyl Sulphourea; Allyl Thiourea; Rhodalline).—Fr. allyl sulphocyanate (mustard oil), by ann. & alc.— $C_4H_8N_2S$ , or,  $CS(NH_2).NHC_3H_5$ .—Colorl. cryst.; faint garlic odor; bitter taste.—*Sol.*, sl. W.; eas. A., & E.—*Melt.* 74° C.—*Eschar.*; *Resolvent*; *Antisep.*—*Uses*: *Extern.*, lupus, chronic glandular tumors, & for removing scar tissue. Possesses the power of softening cicatricial tissue & tumors of the uterine appendages.—*Intern.*, stricture, corneal opacities, chron. deafness.—*Techn.*, photo developer.—Also used in analysis of feces.—*Doses*:  $\frac{1}{2}$  grain (0.03 Gm.) grad. incr. to  $1\frac{1}{2}$  grains (0.1 Gm.) 2–3 t. p. d., in caps. or tablet triturates.—*Inj.*, parenchym. or hypoderm., 1–2 grains (0.06–0.12 Gm.) in 10% glycerino-aqueous (4:1) solut. every 3 days.

*Thiosinamine & Sodium Salicylate.*—see Fibrolysin

*Thiourea.*—see Thiocarbamide

*Thioxidyphenylamine.*—see Sulphaminol

*Thomas Balsam.*—see Balsam Tolu

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Thorium Merck**

(12000)

*Etymol.*: Named for "Thor," the mythol. Scandinavian god of thunder; element discovered & named by Berzelius in 1828.—*Metal.*—Th.—Gray, heavy, infus. powd.—*Sol.*, in nitrohydrochloric acid.—Burns in air to thorium dioxide w. brilliant light. Thorium salts constitute 99% of salts used in manuf. incandescent mantles.

*Thorium Anhydride.*—see **Thorium Dioxide**

**Thorium Chloride Merck**

(50)

$\text{ThCl}_3 \cdot 8\text{H}_2\text{O}$ .—Wh., v. hygrosc. cryst. mass.—*Sol.*, eas. W.; A.—*Uses*: Incandescent lighting.

**Thorium Dioxide Merck**

(75)

(Thorium Anhydride).— $\text{ThO}_2$ .—Wh., heavy powd.—*Insol.* W. & dil. acids; decomp. by sulphuric acid.—*Uses*: Incandescent lighting.

**Thorium Nitrate Merck**

(20)

$\text{Th}(\text{NO}_3)_4 + 4\text{H}_2\text{O}$ .—50–52%  $\text{ThO}_2$ .—Wh., cryst. masses.—*Sol.*, eas. W.—Most important substance used in incandescent lighting.—Thorium nitrate w. 1% cerium nitrate constitutes the usual impregnating fluid for incandesc. mantles.

**Thorium Sulphate Merck**

(40)

$\text{Th}(\text{SO}_4)_2 + 4\text{H}_2\text{O}$ .—Woody, felted, wh. cryst.—*Sol.*, diffic. W. at medium temperature; in cold water passes into the enneahydrate, & thus becomes more soluble.

*Thoroughwort.*—see **Eupatorium**

**Thoulet's Solution.**—For separating minerals

Conc., aqu. solut. potass. iodide & mercuric iodide.—Sp. Gr. 3.17 at 15° C.—*Uses*: For separating minerals of different specific gravity.

**Thresh's Reagent.**—For alkaloids

Solut. 2.4 Gm. bismuth citrate, 20 Cc. W., & suff. ammonia & W. to make 30 Cc.; mix w. a solut. 2 Gm. potass. iodide in 45 Cc. HCl.—Reagent gives a ppt. w. albumen, & w. alkaloids in acidul. solut.

*Thridace.*—see **Lactucarium, French**

**Thuja**

(Arbor Vitæ; Yellow Cedar; False White Cedar; Tree of Life).—Herb of *Thuja occidentalis*, L. Coniferae.—*Habit.*: North America; cultiv. in Europe.—*Etymol.*: Grk. "thycin," to exhale, referring to the odor given off by the burning wood. Lat. "Occidentalis," occidental, *i.e.*, western, refers to its habitat.—*Constit.*: Volat. oil (thujon,  $\text{C}_{10}\text{H}_{16}\text{O}$ , & fenchon); thujin,  $\text{C}_{20}\text{H}_{32}\text{O}_{12}$ ; thujetic acid,  $\text{C}_{28}\text{H}_{42}\text{O}_{13}$ ; tannin; pinipicrin.—*Diaph.*: Diur.; Emoll.; Antisyph.; Antirheum.; Anthelm.; Astring.; Styptic (extern.); Emmen.; Antiper.; Alter.; Vermif.—*Uses*: Intermit. fever, scurvy, cough, rheum., amenor., & worms.—*Doses*: 15–60 grains (1–4 Gm.).—*Fld.* extr. 30–60 ℥ (2–4 Cc.).

**Thymacetin**

Deriv. of thymol & closely allied to phenacetin.— $\text{C}_{14}\text{H}_{21}\text{NO}_2$  or  $\text{C}_6\text{H}_5\text{CH}_2\text{C}_3\text{H}_7(\text{OC}_2\text{H}_5)_2\text{NHCH}_2$

$\text{H}_2\text{O}$ ).—Wh., cryst. powd.—*Sol.* A., E.; sl. in W.—*Melt.* 136° C.—*Analg.*; Hypn.; Antisep.—*Uses*: Headache, neural., paralysis, insom., delir., &c.—*Dose* 5–15 grains (0.3–1 Gm.).

**Thyme**

Herb of *Thymus vulgaris*, L. Labiatae.—*Habit.*: Southern Europe; cult. in gardens.—*Etymol.*: Grk. "thymos," strength, referring to its invigorating odor. Lat. "vulgaris," common, ordinary.—*Constit.*: Volat. oil; tannin; gum.—*Antisep.*; Antispasm.; Carmin.; Antipyr.—*Uses*: Intern., Diar., whoop-cough, &c., & as condiment.—*Extern.*, in arom. herbal baths, cataplasms, & fomentations in contusions, skin dis., &c.—*Dose*: *Fld.* extr., 5–30 ℥ (0.3–2 Cc.).

*Thyme, Wild.*—see **Serpyllum**

**Thymene Merck**

(5)

Hydrocarbon fr. oil of thyme; probably ident. w. pinene.— $\text{C}_{10}\text{H}_{16}$ .—Colorl., volat. oil.—*Sol.* A., E.—Sp. Gr. 0.868 at 20° C.—*Boil.* 165° C.—Antiseptic.

*Thymiod.* }

*Thymiodol.* } —see **Thymol Iodide**

*Thymodin.* }

**Thymoform**

Condensation prod. of thymol & formaldehyde.— $\text{CH}_2(\text{C}_6\text{H}_3[\text{CH}_3][\text{C}_3\text{H}_7]\text{O})_2$ .—Yellowish, tastel. powd.; faint odor of thymol.—*Sol.*, eas. A., E., C.; oils; insol. W., G.—Antisep.—*Uses*: Instead of iodoform.

*Thymoil.*—see **Thymoquinone**

**Thymol Merck.**—Highest Purity, cryst. & powder (5)

(Thyme Camphor; Thymic Acid; Parapropylmetacresol; Methylnormalpropylphenol).—A phenol found in volat. oil of *Thymus vulgaris*, L. *Serpyllum*, *Ptychotis Ajowan*, & *Monarda punctata*.— $\text{C}_{10}\text{H}_{14}\text{O}$ , or  $\text{C}_6\text{H}_3(\text{CH}_3)(\text{OH})(\text{C}_3\text{H}_7)$ .—[1:3:4].—Colorl., transl. cryst.; thyme-like odor; pung., somewhat caustic taste.—*Sol.* A., E., C., carbon disulphide, glacial acetic acid, oils; 1:100 W.—*Melt.* 50–51° C.—Sp. Gr. 1.030 at 25° C.—*Boil.* 228–230° C.—Antisep.; Antipyr.; Anthelm.—*Uses*: Intern., rheum., gout, typhus fever, whoop-cough, influenza, gastric fermentation, &c.—*Extern.*, inhaled in bronch., coughs, coryza, &c.; for toothache & mouthwash; & for wounds, ulc., & skin dis. In dentistry & surgery 1% solutions are used.—*Techn.*, destroying mold & herbarium parasites, preserv. anatom. specimens & urine, embalming corpses, &c.—*Doses*: 1–5 grains (0.06–0.3 Gm.) several t. p. d.; as antipyr., 8–15 grains (0.5–1 Gm.); as anthelmint., 120 grains (8 Gm.) in 12 divided doses given at intervals of 15 minutes.—*Incomp.*, acetanilide, antipyrine, butyl-chloral hydrate, camphor, monobromated camphor, carbolic acid, hydrated chloral, euphorin, menthol, quinine sulphate, salol, or urethane, in trituration; gold salts, spt. nitrous ether.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Thymol Merck.—Reagent**

(10)

$C_6H_4(CH_3)[1]OH[3]$  [ $C_6H_4[1]$ —Colorl., hexag. cryst.—*Sol.*, cas. A., E., C.; diff. W. (1:1100).—*Melt.* 50–51° C.—*Boil.* 228–230° C.—*Tests.* (*Energy, 10 per.*) ignite 1 Gm.—no wghble res.—(*Free Acids*) blue litmus paper not reddened by aq. or aq. solut.—*Phenol.* Aq. 1:1100 solut.—bramine water—only milky turb., but no cryst. ppt.—Add solut.  $FeCl_3$ —no violet color.—*Use.* In Moloch's sugar test replacing alpha-naphthol, detect. coniferin.

*Note.*—For complete tests see "Chemical Reagents, Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Thymol Carbonate.—see Thymotal**

**Thymol Iodide Merck.—U. S. P.**

(10)

(Aristol; Diiododithymol; Annidalin; Dithymol diiodide; Thymotal; Iodistol; Iodohydromol; Iodothymol; Iodosol; Iosol; Iothymol; Thymiod; Thymiodol; Thymodin).—Fr. thymol, by alkali, w. iodine in solut.  $KI$ .— $(C_6H_4)_2O_2I_2$  or  $(C_6H_4CH_2OIC_6H_4)_2$ .—Red-brown powd.—15% of iodine.—*Sol.* E., C., oils; sl. A.; insol. W. or O.—Succedaneum for iodoform.—*Dermic & Antisept.*—*Uses:* *Extern.*, rhus poisoning, psoriasis, syphilis, syph. neopl.; carcinoma; burns; cicatr. wounds, as dust. powd., solut. or oint.; in supposit. in chr. dysent.—*Appl.* 10% solut. in oils, collodion, or ether, or as oint. In prep'g solut. avoid heat.—*Incomp.*, acids, alcohol, ammonia, corros. sublimate, metal. oxides, alkalies, starch, & alkali carbonates.—*Caut.* Sensitive to light, hence keep in dark bot.

**Thymol Salicylate**

(Salithymol).—React.-prod. sod. salicylate w. sod. thymolate & phosphorus trichloride.— $C_{10}H_{13}O_4C_6H_5O_2$ .—Wh., cryst. powd.; sweetish taste.—*Sol.* A., E.; sl. in W.—Antiseptic.

**Thymoquinone Merck**

(200)

(Thymoil).— $C_6H_2O_2CH_3C_3H_7$ .—Brownish-yellow cryst.—*Sol.* A., E., C.—*Melt.* 74° C.

**Thymotal**

(30)

(Tyratol; Thymol Carbonate).—Obt. by passing phosgene gas,  $COCl_2$  into a solut. sod. thymolate.—Colorl., cryst.; faint odor thymol.—*Sol.* A., E., C.; insol. W.—*Teniacide.*—*Uses:* Tape worm, pin worms, &c.—*Doses:* Adults, 30 grains (2 Gm.) 3 t. p. d.; children, 8–15 grains (0.5–1 Gm.).

**Thymotol.—see Thymol Iodide**

**Thymus Gland Merck.—Dried, powder**

(50)

Fr. the fresh thymus glands of calves & sheep.—1 part=6 parts of the fresh gland.—Contains iodine.—*Uses:* Struma, Basedow's disease, & pseudohypertrophic myopathy.—*Dose* 40–75 grains (2.5–5 Gm.) per day.

**Thymus Serpyllum.—see Serpyllum**

**Thymyl Acetate.—see Acetyl-thymol**

**Thymyl Trichloracetate**

Fr. thymol & trichloroacetic acid in molec. proportion.—Cryst. mass.—*Sol.* A., E., insol. W.—*Melt.* 44° C.—*Caut.* Antisept. for wounds, &c.

**Thyraden**

(26)

(Standardized Dried Extract Thyroid Gland, Knoll).—Lactose trituration of the dried extract of thyroid gland—15 grains (1 Gm.) contains  $\frac{1}{100}$  grain (0.0007 Gm.) iodine.—1 part=2 parts fresh gland.—Light-brownish, sweet powd., free fr. ptomaines.—*Alter*; *Antifat*—*Uses:* Myxedema, cretinism, psoriasis, obesity, &c.—*Dose* 2–4 grains (0.12–0.25 Gm.) 3 t. p. d., gradually increased to 8 grains (0.5 Gm.) if necessary, best taken in tablets; children  $\frac{1}{4}$ – $\frac{1}{2}$  as much.

**Thyreoidin Notkin-Merck.—Purified**

(800)

Albuminoid fr. thyroid gland.—Develops the thyroid action in most pronounced manner.—*Transp.* scales or yellow powd.—*Sol.* W.—*Uses:* In all cases where thyroid preparations indicated, & particularly for hypodermic medication (see Thyroidin).—*Dose:*  $\frac{1}{10}$  grain (0.01 Gm.) once or twice daily; hypoderm., 15 M (1 Cc.) of a solut. 0.05:10, to which a drop of chloroform is added to preserve it.

**Thyroid Gland, Powdered.—see Thyroidin**

**Thyroidin Merck**

(26)

Dried & powdered thyroid glands of sheep.—7 grains (0.4 Gm.) of the powd. represents the active constituents of a fresh thyroid gland of medium size, i.e., 1 part=6 parts fresh gland.—Contains iodine organically combined.—*Uses:* Myxedema, cretinism, psoriasis, lepra, obesity, cerebral anemia, prurigo, iodide-idiosyncrasy, dwarfed growth, spasmodic torticollis, retarded bony growth in fractures, agalactia, neurasthenia, diabetes, &c.—*Dose*  $\frac{1}{2}$ –1 grain (0.03–0.06 Gm.) gradually increased up to 8 grains (0.5 Gm.) 2–3 t. p. d. in powd. or tablets.—*Antid.*, arsenic (Fowler's solution) in ordinary doses.

**Thyroidine.—see Iodothyrene**

**Tigilium**

(Croton; Purging Croton; Moleuca Grains; Grana Tili).—Seeds of Croton Tigilium, L. Euphorbiaceae.—*Habit.*: East Indies; Philip-pines.—*Etymol.*: Grk. "kroton," dog-tick, i.e., fr. the resemblance of the seeds. "Tigilium," fr. Grk. "tilos," diarrhea, referring to its action.—Ovoid, abt. size of a pea, reddish-brown when fresh, grayish-brown when old; thin, brittle, ligneous shell; delicate, white, membranous integument; oleaginous kernel.—*Constit.*: Fixed oil (croton oil), containing tiglic acid ( $C_5H_9O_2$ ), crotonol ( $C_{18}H_{35}O_4$ ), croton resin, &c.—*Uses:* Drastic Purgative.

**Tilia**

(Basswood; White Wood; Linn Tree; Linden).—Flowers of Tilia ulmifolia, Scopoli, & var. spec. of T. Tiliaceae.—*Habit.*: Europe; Asia; cultiv. in U. S.—*Etymol.*: Fr. Grk. "ptilon," feather, fr. the feathered or winged peduncles.—*Constit.*:

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



Volat. oil; pectin; tannin; sugar; fat; wax; coloring matter.—Antispasmodic; Diaphoretic; Stimulant; Tonic.—*Uses*: Local & general baths & steam baths, & in mouthwashes, gargles, inhalations, &c.—*Dose* 30–40 grains (2–2.6 Gm.) in infus. or tinct.

**Timbó**

Bark of *Paullinia pinnata*, L. Sapindaceae.—*Habit*: Brazil.—*Etymol.*: Named for the Danish botanist Simon Paulus, died 1680; “Timbó” is the aboriginal name of the plant.—*Constit.*: Acrid resin; timbonine.—*Uses*: Rubefacient in hepatic affections; used by natives as fish poison.

**Tin Merck.—Pure, gran., sticks & filings** (2)

*Etymol.*: “Tin,” “stean,” or “stan,” a stone, was the Anglo-Saxon name for tin stone. The Lat. “stannum,” fr. “stan.” Among the ancients the name “stannum” was not applied to tin, but to a mixt. of silver & lead, & it was in the 4th century A.D. that the name appeared to have been first used for tin.—*Metal.*—Sn.—Wh., lustr., gran. bars, sticks or filings.—*Sp. Gr.* 7.29.—*Melt.* 235° C.—*Sol.*, hydrochloric acid, & in nitrohydrochloric acid.—*Uses*: Techn., tin & its alloys are used in manuf. utensils for domestic & industrial purposes; plating sheet iron & copper; tin foil; mirrors; enclosure for foods to prevent drying out; soldering; tin “diamonds,” tin luster, &c.; prepar. tin salts, &c.

**do. Merck.—Pure, powder** (2)

Fine gray powd.—*Sol.*, acids.—*Tenifuge*.—*Dose* 8 grains (0.5 Gm.) 4 t. p. d.—*Extern.*, as dusting powd. in corneal opacities.

**do. Merck.—Sticks & sheets** (2)**Tin Merck.—Reagent** (3)

Sn.—Alm. silver-wh., soft met.—*Sol.* HCl (SnCl<sub>2</sub> formed); hot conc. HNO<sub>3</sub> converts it into insol. metastannic acid.—*Melt.* 231° C.—*Tests*: (Pb; Cu; Fe; Zn) digest 5 Gm. + 40 Cc. HNO<sub>3</sub> on W.-bath till compl. convert. into wh. powd.; evap. compl.; stir res. w. 10 Cc. dil. HNO<sub>3</sub> (sp. gr. 1.153) + 50 Cc. H<sub>2</sub>O; filter; to filtrate add 1 Cc. dil. H<sub>2</sub>SO<sub>4</sub> & evap. on W.-bath; treat res. w. 10 Cc. H<sub>2</sub>O—no wghble res. (Pb); filter; to filtrate add NH<sub>4</sub>OH to alkali. react.—no blue color (Cu); add (NH<sub>4</sub>)HS & let stand 4–5 hrs. at abt. 50° C.; if any ppt. forms, ignite & weigh—wt. should not exceed 0.002 Gm. (Fe; Zn).—*Uses*: Electrolytic; prepar. stannous chloride.

*Note.*—For complete tests see “Chemical Reagents: Their Purity & Tests,” published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Tin Acetate Merck** (15)

(Stannous Acetate).—Sn(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub>.—Yellowish powd.—*Insol.* W.—*Uses*: Techn., mordant.

**Tin Amalgam Merck** (8)

*Uses*: Dental cements, &c.

**Tin Anhydride.**—see **Tin Oxide, Stannic, White****Tin Ash.**—see **Tin Oxide, Stannic, Gray**

**Tin Bichloride.**—see **Tin Chloride, Stannic, Fuming; Tin & Sodium Chloride**

**Tin Bisulphide.** } —see **Tin Disulphide**  
**Tin Bronze.** }

**Tin Chloride Merck.—Stannic.—Fuming** (8)

(Tin “Bichloride” [improperly] or Tetrachloride).—SnCl<sub>4</sub>.—Colorl., fum., caustic liq.—*Sp. Gr.* 2.234 at 15° C.—*Boil.* 115° C.—*Uses*: Techn., as mordant, reviving colors, manuf. fuchsine, dyeing w. iodine green, tinning vessels, &c.—*Caut.* Keep well stoppered.

**Tin Chloride Merck.—Stannous.—Pure** (2)

(Tin Protochloride or Dichloride; Tin Salt).—SnCl<sub>2</sub> + 2H<sub>2</sub>O.—Wh., cryst. mass; absorbs oxygen fr. air & forms insol. oxychloride.—*Sol.* 0.37 W., A.—*Uses*: Intern., Tenifuge, & antidote in poison. by corrosive sublim.—*Extern.*, in 1–2:1000 aq. solut. in eczema.—*Techn.*, reducer for indigo & iron & manganese oxides in dyeing, as mordant in dyeing w. cochineal, manuf. gold-purple & lakes, tinning by galvanic methods, determ. of tannin, removing ink stains, improv. appearance of sugar, manuf. of metal-line which, mixed w. albumen, is printed on hangings & o. fabrics, &c.—*Dose* 1/12–1/2 grain (0.005–0.03 Gm.) several t. p. d.—*Antid.* (for all tin salts): Emetics, sod. bicarbonate, tannin (5 grains [0.3 Gm.] every 15 min.), milk, egg albumen.—*Caut.* Keep well stoppered.

**do. Merck.—Pure, fused** (2)**do. Merck.—Cryst.** (1)**Tin Chloride Merck.—Reagent.—Stannous** (4)

(Stannous Chloride).—SnCl<sub>2</sub> + 2H<sub>2</sub>O.—Colorl. cryst.—*Sol.*, eas. & clearly in A., & W. acidul. w. HCl; decomp. by much W. w. separ. basic stannous chloride.—*Tests*: (H<sub>2</sub>SO<sub>4</sub>) 1 Gm. + 5 Cc. HCl (sp. gr. 1.19) + 50 Cc. H<sub>2</sub>O + solut. BaCl<sub>2</sub>—no turb.—(NH<sub>4</sub> Compounds) heat 1 Gm. + 10 Cc. solut. NaOH (sp. gr. 1.3) —no NH<sub>3</sub> vapors evolv. (test w. moist litmus paper).—(Earths; Alkalies; Fe) 2 Gm. + 10 Cc. HCl (sp. gr. 1.19) + 100 Cc. H<sub>2</sub>O; pass in H<sub>2</sub>S gas till all Sn pptd.; filter; evap. filtrate; ignite res.—wt. no more than 0.001 Gm. Heat res. w. 1 Cc. HCl (sp. gr. 1.124); add 20 Cc. H<sub>2</sub>O + solut. KSCN—at most only faint red color.—(As) boil 2 Gm. + 10 Cc. HCl (sp. gr. 1.19) sev. min.—solut. should remain clear & colorl. for 1 hr.—*Uses*: Detect. As, Hg; determ. Cu, Fe; indicator in determ. sugar.

*Note.*—For complete tests see “Chemical Reagents: Their Purity & Tests,” published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.—Reagent.—Solution**

Obt. by stirring 5 parts stannous chloride w. 1 part HCl (sp. gr. 1.124) & then satur. mixture w. dry HCl gas.—Sl'tly yellow, v. refract. liq.—*Sp. Gr.* not below 1.90.—*Tests*: (Impur. Pptd. by A.) 1 vol. + 10 vol. 85% A.—no turb.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

- Solution* in  $(H_2SO_4 + 5 C_2H_5OH + 30 C_2H_5O) + \text{sol.}$   
BaCl<sub>2</sub> no turb.—*Uses*: Detect. A., Bi., Se., Hg.  
*Amo.* oil.
- A. to*—For complete tests see "Chemical  
Reagents, Their Purities & Tests," published by  
D. Van Nostrand Co., New York. This reagent  
conforms to the standard therein given.
- Tin Chromate Merck.**—Stannic (8)  
 $Sn(CrO_4)_2$ —Brownish-yellow, cryst. powd.—  
*Sol.* W.—*Uses*: Decorating porcelain.
- Tin Chromate Merck.**—Stannous (5)  
 $SnCrO_4$ —Brown powd.; also mod. W.—*Uses*:  
Decorating porcelain affords red & blue colors.
- Tin Citrate Merck** (8)  
[Stannous Citrate].— $C_6H_5O_7Sn$ —Wh., heavy  
powd.—*Sol.* S, W.
- Tin Dichloride.**—see Tin Chloride, Stannous
- Tin Dioxide.**—see Tin Oxide, Stannic
- Tin Disulphide Merck** (4)  
[Stannic Sulphide; Tin Bisulphide; Mosaic Gold;  
Tin Bronze].— $SnS_2$ —Golden, transl. scales, or  
six-sided laminae.—*Uses*: Techn., for gilding &  
bronzing metal, gypsum, wood, & paper, usually  
suspended in lacquer or varnish. Formerly  
used medicinally as tape-worm remedy.
- Tin Hydroxide Merck.**—White (2)  
[Stannic Hydrate].— $Sn(OH)_4$ —Pure wh., amor-  
phous powd.—*Sol.*, in fused alkalis.
- Tin Iodide Merck** (15)  
[Stannic Iodide; Tin Tetraiodide].— $SnI_4$ —Red  
cryst.—*Sol.*  $CS_2$ , A., E., C., & B.—*Incomp.* W.
- Tin Monosulphide.**—see Tin Sulphide
- Tin Monoxide.**—see Tin Oxide, Stannous
- Tin Oxalate Merck** (4)  
[Stannous Oxalate].— $SnC_2O_4$ —Heavy, wh.,  
cryst. powd.—*Sol.* acids.—*Uses*: Techn., in  
dyeing & printing.
- Tin Oxide Merck.**—Stannic.—White, pure (2)  
[Tin Peroxide, or Dioxide; Flowers of Tin;  
Stannic Anhydride].— $SnO_2$ —Wh., amorph.  
powd.—*Sol.* in fused alkalis; insol. W., & acids.  
—*Uses*: Medicinally obsolete.—*Techn.*, & as  
polish for finger nails.
- do. Merck.—White (1)
- do. Merck.—Gray (2)  
[Polishing Powder; Tin Stone; Tin Ash].— $SnO_2$ .  
—Grayish-wh., amorph. powd.—*Uses*: Techn.,  
for polishing steel & glass, manuf. milk-colored  
glass, alabaster glass, enamel, & opaque glaze.
- Tin Oxide Merck.**—Stannous.—Pure (4)  
[Tin Monoxide, or Protoxide].— $SnO$ —Brown-  
ish-black, insol. powd.; burns on heating in air.  
—*Uses*: Powerful reducing agent.
- Tin Oxide & Soda Merck.**—Solution (2)  
[Solution Sodium Stannite].— $CaH_2Li_1—Sp$   
(at 150 at 15° C.—*Uses*: Techn., in dyeing &  
printing fabrics).
- Tin Peroxide.**—see Tin Oxide, Stannic
- Tin Phosphide Merck** (10)  
 $Sn_3P_2$ —Silver-wh., hard.—*Uses*: Techn.,  
in manuf. phosphor bronze, which is v. resistant  
to oxid'g act. of atm. air & acid vapors.
- Tin Protochloride.**—see Tin Chloride, Stannous
- Tin Protosulphide.**—see Tin Sulphide
- Tin Protoxide.**—see Tin Oxide, Stannous
- Tin Stone.**—see Tin Oxide, Stannic, Gray
- Tin Sulphate Merck.**—Pure (3)  
[Stannous Sulphate].— $SuSO_4$ —Heavy, wh., to  
yellowish cryst. powd.—*Sol.* W. & acids.—*Uses*:  
Dyeing.
- Tin Sulphide Merck.**—Cryst. (4)  
[Stannous Sulphide; Tin Monosulphide, or Pro-  
tosulphide].— $SnS$ —Gray, glist., cryst. scales.  
—*Sol.*, hydrochloric acid.
- Tin Tannate Merck** (10)  
[Stannous Tannate].— $Sn_2C_7H_5O_5 + H_2O$ —  
Brownish-black, insol. cryst. powd.
- Tin Tartrate Merck** (10)  
[Stannous Tartrate].— $SnC_4H_4O_6$ —Heavy, wh.,  
cryst. powd.—*Sol.* W.—*Uses*: Dyeing & print-  
ing fabrics.
- Tin Tetrachloride.**—see Tin Chloride, Stannic,  
Fuming
- Tin Tetraiodide.**—see Tin Iodide
- Tin & Sodium Chloride Merck.**—Cryst. (2)  
[Sodium Stannichloride; Tin Bichloride; Tin &  
Sodium Tetrachloride].— $Na_2SnCl_6 \cdot H_2O$ —Wh.,  
cryst. mass, or hard, brittle pieces.—*Sol.* W.—  
*Uses*: Techn., as mordant in dyeing.
- Tincture Adonis Æstivalis Merck** (2)  
Fr. A. æstivalis, L.—100 Gm. per liter.—Diuret.  
—*Uses*: Cardiac dis. (insufficiency of cardiac  
valves, &c.). Also obesity.—*Dose*: As anti-fat,  
10–30 m (0.6–2 Cc.), after meals, in lithia W.
- Tincture Simulo Merck** (7)  
Fr. seeds Capparis coriacea, Burch.—Nerv.;  
Antiepilep.—*Uses*: Hyst., nervousn., & epilepsy.  
—*Dose* 30–60 m (2–4 Cc.).
- Tincture Strophanthus Merck.**—U.S.P.—1:10 (2)  
Fr. seed Strophanthus Kombé, Oliv., deprived  
of the awn.—100 Gm. per liter.—Pale-yellow  
liq.; peculiar odor; bitter taste.—Cardiac Tonic;  
Diur.—*Uses*: Heart dis., asthma, dyspnea,  
dropsy, renal colic fr. calculi, palpitation of  
heart, nephritis, &c.—*Dose* 5–15 m (0.3–1 Cc.).—  
*Antid.*, emetics, stom. siphon, cathartics, tannin,  
opium, coffee, brandy, &c.—*Caut.* Poison!

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Titanic Anhydride.**—see (Acid) Titanic Anhydride

**Titanic Hydroxide.** } —see Acid Titanic  
**Titanic Oxide.** }

**Titanium Merck** (140)

*Etymol.*: Discovered in 1795 by Klaproth, & named by him in honor of the Titans, the primeval sons of the earth. — Metal. — Ti. — Dark-gray, amorph. powd.; very hard; scratches agate & steel. — Sp. Gr. 3.589 at 0° C. — *Sol.*, warm hydrochl. acid. — *Uses*: As alloy (copper & iron) in titanium bronze, & as titanium green. The metal itself is not used.

**Titanium Chloride Merck.**—Titanic (75)

(Titanium Tetrachloride).— $\text{TiCl}_4$ .—Colorl. liq.; absorbs moisture fr. air & evolves dense wh. fumes. — *Boil.* 136° C. — *Uses*: With potass. bitartrate as mordant in textile industry.

**Titanium Chloride.**—Titanous

(Titanium Dichloride).— $\text{TiCl}_2$ .—Hygros., black powd.; burns like tinder when heated in air; decomp. W. — *Caut.* Keep protected fr. air.

**Titanium Dichloride.**—see Titanium Chloride, Titanous

**Titanium Dioxide.**—see (Acid) Titanic Anhydride

**Titanium Dioxide, Hydrated.**—see Acid Titanic

**Titanium Nitrate Merck** (100)

Approx.  $\text{TiO}(\text{NO}_3)_2 \cdot x\text{H}_2\text{O}$ . — Wh., cryst. mass. or wh., lustr. cryst. — *Sol.*, cold W.; decomp. by warm W.

**Titanium Oxide.**—see (Acid) Titanic Anhydride

**Titanium Sulphate Merck.**—Pure (110)

$\text{TiOSO}_4 \cdot 2\text{H}_2\text{O}$ . — Wh., cryst. needl. — *Sol.*, in W. acidul. w.  $\text{H}_2\text{SO}_4$ ; decomp. by boil. w. pure W. — *Uses*: Dyeing.

**Titanium Tetrachloride.**—see Titanium Chloride, Titanic

**Titanium Trichloride Merck.**—Solution (5)

Reddish-violet liq. cont. abt. 15%  $\text{TiCl}_3$ . — *Uses*: Chem. anal. — *Caut.* Keep in well-stop'd bts.

**Titanium & Ammonium Oxalate Merck** (7)

$\text{TiO} \cdot (\text{COO} \cdot \text{COONH}_4)_2 \cdot \text{H}_2\text{O}$ . — Sm., wh., lustr. cryst. — *Sol.*, eas. W. — *Uses*: As mord. in dyeing.

**Titanium & Potassium Fluoride Merck** (12)

$\text{TiK}_2\text{F}_6$  + aq. — Wh. cryst. — *Sol.*, diffic. in cold W.; more readily in hot W. — *Uses*: In manuf. pure titanic acid & titanium.

**Titanium & Potassium Oxalate Merck.**—Techn. (3)

$\text{TiO} \cdot (\text{COO} \cdot \text{COOK})_2 \cdot 2\text{H}_2\text{O}$ . — Wh., or greenish-wh., lustr., triclinic cryst. — *Sol.*, eas. W. — *Uses*: As mordant in dyeing.

**Tobacco.**—see Tabacum

**Tobacco, Indian.**—see Lobelia

**Tolidine Merck.**—Pure (30)

(Orthotolidin; Orthodiamidoditoly). — Fr. ortho-nitrotoluene by reduct w. sod. amalgam in pres. of  $\text{C}_2\text{H}_5\text{O}_2$ . —  $\text{C}_{15}\text{H}_{15}\text{N}_2$  or,  $(\text{C}_6\text{H}_4)_2(\text{CH}_3)_2(\text{NH}_2)_2$ . — Wh. to reddish cryst. — *Sol.* A., E. — *Melt.* 129° C.

**do. Merck.**—Commercial (6)

Grayish-yellow powd. — *Uses*: Manuf. dyes.

**Tolidine Sulphate Merck** (6)

(Orthotolidine Sulphate). —  $(\text{C}_6\text{H}_4)_2(\text{CH}_3)_2(\text{NH}_2)_2 \cdot \text{H}_2\text{SO}_4$ . — Wh. to reddish cryst. powd. — *Sol.*, sl. in W. & A.

**Toluzotolidine.**—see Amidoazotoluene, Ortho-

**Toluene Merck.**—Pure (1)

(Toluol; Methylbenzene [or, -zol]; Phenylmethane). — Fr. coal tar. —  $\text{C}_7\text{H}_8$ , or,  $\text{C}_6\text{H}_5\text{CH}_3$ . — Colorl., refractive liq.; benzene-like odor. — Sp. Gr. 0.870 (= 31° B $\acute{e}$ .) at 15° C. — *Sol.* A., E.; glacial acetic acid, acetone, C.; sl. W. — *Boil.* 110–112° C. — *Uses*: Techn., in manuf. coal-tar dyes & artif. musk; also as solvent.

**Toluene Bromo- (Ortho-) Merck** (75)

(Orthomonobromotoluene [or, -ol]). — By brominating toluene in the cold & separating the para-compound. —  $\text{C}_7\text{H}_7\text{Br}$ , or,  $\text{C}_6\text{H}_4\text{Br} \cdot \text{CH}_3$  [2:1]. — Colorl. to yellowish liq. — *Sol.* A., E., B. — Sp. Gr. 1.411 at 22° C. (Kekulé). — *Boil.* 182–183° C.

**Toluene Bromo- (Para-) Merck** (60)

(Paramonobromotoluene [or, -ol]). — By brominating toluene in the cold & separating fr. the ortho-comp. —  $\text{C}_7\text{H}_7\text{Br}$ , or,  $\text{C}_6\text{H}_4\text{Br} \cdot \text{CH}_3$  [4:1]. — Reddish cryst. — *Sol.* A., B. — *Boil.* 185° C. (?)

**Toluene Chloro- Merck** (20)

(Paramonochlorotoluene [or, -ol]). — By chlorinating toluene in the pres. of iodine. —  $\text{C}_7\text{H}_7\text{Cl}$ , or,  $\text{C}_6\text{H}_4\text{Cl} \cdot \text{CH}_3$  [4:1]. — Colorl. liq. — *Sol.* A., B. — Sp. Gr. 1.073 at 27° C. — *Boil.* 161° C.

**Toluene Trichloride.**—see Benzotrichloride

**Toluic Nitrile (Ortho-) Merck** (75)

(Orthotoluic Nitrile; Nitrile of Orthotoluic Acid). — Fr. potass. cyanide by heat w. potass. tolueneorthosulphonate. —  $\text{C}_8\text{H}_7\text{CH}_3 \cdot \text{CN}$  [1:2]. — Brown liq. — *Sol.* A., E., B. — *Boil.* 203–204° C.

**Toluic Nitrile (Para-) Merck** (75)

(Paratoluic Nitrile; Nitrile of Paratoluic Acid). — Fr. potass. cyanide, by distil. it w. potass. tolueneparasulphonate. —  $\text{C}_8\text{H}_7\text{CH}_3 \cdot \text{CN}$  [1:4]. — Yellow, cryst. mass. — *Sol.* A., E., B. — *Melt.* 28° C. — *Boil.* 218° C.

**Tolidine Blue Merck** (10)

Zinc-chloride double salt of dimethyltoluidine. —  $\text{C}_{15}\text{H}_{16}\text{N}_3\text{S} \cdot \text{ZnCl}_2$ . — Dark-green powd. — *Sol.* A. w. blue color. — *Uses*: In ophthalmology like methylene blue in purulent, infectious conjunctivitis; also like fluorescein to detect corneal defects. — *Techn.*, for dyeing cotton. — *App.* 1:1000 solut.

**Comparative Values** (see Preface, page v): 1= Cheap Articles; 2= Salol; 3= Guaiacol; 4= Potassium Iodide; 5= Iodoform; 11= Silver Nitrate; 25= Strychnine; 44= Veratrine; 55= Morphine Sulphate; 225= Aconitine; 570= Gold Tribromide; 1111= Eserine Sulphate; 1710= Hyoseyamine; 2565= Homatropine Hydrobromide; 3000 & over= Very Expensive Articles.



**Toluidine (Meta-) Merck** (30)  
(Meta-aminotoluene [or, -ol]).—Fr. reduct. of meta-nitrotoluene.  $\text{C}_6\text{H}_4\text{CH}_3\text{NH}_2$  [1.3].—Reddish-brown liq.—*Sol.* A, E.—*Sp. Gr.* 0.998 at 25° C.—*Boil.* 197° C.

**Toluidine (Ortho-) Merck.—Highest Purity** (3)  
(Ortho-aminotoluene [or, -ol]).—By reduct. of ortho-nitrotoluene. Free from paratoluidine.  $\text{C}_6\text{H}_4\text{CH}_3\text{NO}_2$  [1.2].—Light-yellow liq. closely resembling aniline; reddish-brown on expos. to air & light.—*Sol.* A, E.—*Sp. Gr.* 1.000 at 16° C.—*Boil.* 197° C.

**do. Merck.—Commercial** (2)  
Reddish-brown liq.—*Sol.* A, E.—*Boil.* 197° C.—*Sp. Gr.* 1.003 at 20° C.

**Toluidine (Ortho-) Nitrate Merck** (12)  
 $\text{C}_6\text{H}_5\text{N HNO}_3$ .—Reddish cryst.—*Sol.* W., A.

**Toluidine (Para-) Merck.—Highest Purity** (6)  
(Para-aminotoluene [or, -ol]).—By reduct. of paranitrotoluene.  $\text{C}_6\text{H}_4\text{CH}_3\text{NH}_2$  [1:4].—Wh. lar. plates or leaflets; pecul. odor.—*Sol.* A, E.—*Melt.* 45° C.—*Boil.* 198° C.

**do. Merck.—Commercial** (3)  
Wh. to brown leaflets, or brown, cryst. mass.—*Uses:* Manuf. coal-tar dyes.

**Toluidine (Para-) Hydrochloride Merck** (8)  
 $\text{C}_6\text{H}_5\text{N.HCl}$ .—Reddish, cryst. crusts.—*Sol.* W., A.

**Toluidine (Para-) Sulphate Merck** (8)  
 $\text{C}_6\text{H}_5\text{N.H}_2\text{SO}_4$ .—Wh. to yellowish cryst.—*Sol.* W., A.

**Toluol.**—see **Toluene**

**Tolylene.**—see **Stilbene**

**Tolylene Red.**—see **Neutral Red, Grübler**

**Tolylenediamine Merck** (100)  
(Metatolylenediamine; Alphadiaminotoluene [or, -ol]).—By reduction of dinitrotoluene.  $\text{C}_6\text{H}_3\text{CH}_3(\text{NH}_2)_2$  [1:2:4].—Brown need.—*Sol.* W., A, E.—*Melt.* 99° C.—*Boil.*, abt. 280° C.—*Caut.* Keep dry & fr. air. Poison! Has destructive influence on red blood-corpuscles. Used in physiological researches.

**Tolylenediamine Hydrochloride Merck** (150)  
(Orthotolylenediamine, or Betadaminotoluene [or, -ol], Hydrochloride).— $\text{C}_7\text{H}_{10}\text{N}_2.2\text{HCl}$ .—Brown powd.—*Sol.* W.

**Tolylantipyrine.**—see **Tolpyrine**

**Tolyhydrazine (Ortho-) Hydrochloride Merck** (50)  
 $\text{C}_7\text{H}_{10}\text{N}_2.\text{HCl} + \text{H}_2\text{O}$ .—Wh. to reddish cryst.—*Sol.* W., A.

**Tolyhydrazine (Para-) Hydrochloride Merck** (40)  
 $\text{C}_7\text{H}_{10}\text{N}_2.\text{HCl}$ .—Brownish powd.—*Sol.* W., A.

**Tolypentadecylketon.**—see **Pentadecyltolylketone**

**Tolpyrine** (30)  
(Paratolylidimethylpyrazole; Tolyantipyrine).—Fr. paratolylhydrazine w. acetoacetic ester, & methylation of the resulting prod.— $\text{C}_{12}\text{H}_{11}\text{N}_2\text{O}$ , or,  $\text{C}_6\text{H}_4\text{CH}_3\text{N CH}_3\text{N CH}_3\text{CH CO}$ .—Colorl. cryst.; bitter taste.—*Sol.* A, 10 W.—*Melt.* 136–137° C.—Antipyr.; Antineural; Anod.—*Uses:* Febrile condit.; rheum., gout, neural., migraine, &c.—*Doses:* Antipyr., 5–15 grains (0.3–1 Gm.); analg., 30–60 grains (2–4 Gm.) p. d.

**Tolpyrine Salicylate.**—see **Tolysal**

**Tolysal** (25)  
(Paratolylidimethylpyrazole Salicylate; Tolypyrine Salicylate).—Fr. tolypyrine w. salicylic acid— $\text{C}_{12}\text{H}_{11}\text{N}_2\text{O C}_7\text{H}_5\text{O}_2$ .—Sm., alm. colorl., or faintly reddish, cryst.; astring., bitter taste.—*Sol.* A, acetic ether; sl. W., E.—*Melt.* 101–102° C.—Antineural.; Antirheum.—*Uses:* Acute & chronic rheum., rheumatic neural., &c. Free fr. unpleas. secondary effects.—*Doses:* Antipyr., 15 grains (1 Gm.) every half to 1 hour; antineural., 15–45 grains (1–3 Gm.) ev. hr. or two; for rheum., 8–15 grains (0.5–1 Gm.) ev. 2 hrs.

**Tonga**

Mixed lvs., bark & wood of *Raphidophora vitiensis*, or *Epipremnum mirabile*, Schott. Araceae.—*Habit.*: Fiji Islands(?); Java; Sumatra; Paraguay; Australia. — *Etymol.*: "Tonga" is the native name.—*Constit.*: Tongine (alkaloid); volat. oil.—*Uses:* Analg. in neural.—*Dose:* Fld. extr., 10–30  $\mathfrak{m}$  (0.6–2 Ce.).

**Tong-Pang.**—see **Rhinacanthus**

**Tonka**

(Tonka Bean; Coumarouna Bean; Snuff Bean; English Tonka Bean).—Bean of *Dipteryx oppositifolia*, Aubl., D. odorata, Aubl., & o. sp. of D. Cesalpiniaaceae.—*Habit.*: Tropical America, Guiana, Angostura.—*Etymol.*: "Tonka" is the South American name of the tree. "Dipteryx" fr. Grk. "dis," two, & "pteryx," wing.—Blackish-brown seeds w. wrinkled surface & brittle, shining or fatty skin; aromat., bitterish taste; balsamic, vanilla-like odor; efflorescence of coumarin often observed on surface.—*Constit.*: Coumarin.—Cardiac Stim.; Nar.; Antispasm.—*Uses:* Whoop-cough. — *Techn.*, in perfum. & manuf. coumarin.—*Dose:* Fld. extr., 5–30  $\mathfrak{m}$  (0.3–2 Ce.).

**Toothache Tree.**—see **Xanthoxylum**

**Tormentilla**

(Tormentil; Septfoil).—Rhizome of *Potentilla Tormentilla*, Necker, Rosaceae.—*Habit.*: Europe; northern Asia.—*Etymol.*: Lat. "potens," powerful, referring to its medicinal action. "Tormentilla," fr. Lat. "tormentum," torment, pain, referring to the use of the drug in dysentery.—*Constit.*: Tannin; tormentilla red; quinic acid; volat. oil. — Astring.; Tonic.—*Uses:* Diar. &

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



dysent.—*Extern.*, in gargles & mouthwashes—also as astring. injection, & local appl. to ulcers.  
—*Doses*: 30–60 grains (2–4 Gm.).—*Aqu. extr.*, 5–15 grains (0.3–1 Gm.).—*Fld. extr.*, 30–60 m (2–1 Cc.).

*Tous-les-mois*.—see **Canna**

*Toxin, Antistreptococcic*.—see **Serum Anti-streptococcic**

**Toxins Erysipelas & Prodigiosus Pasteur.**—**For Cancer & Malignant Growths**

*Liq.*—*Inj.*, daily, 24 m (1.5 Cc.), mixed w. eq. quant. steril. water.

**Tragacanth.**—*U. S. P.*

(Gum Tragacanth; Goat's Thorn; Hog Gum).—Gummy exudation fr. *Astragalus gummifer*. *Labillardière*, & other species of *Astragalus*. *Leguminosae*.—*Habit*: Asia Minor; Syria; Persia.—*Etymol.*: Grk. "tragos," goat, & "akantha," thorn, or horn, *i.e.*, the exuded gum acquires a horny consistency & appearance; or the plant is thorny, & hedges of it resist the attacks of goats.—Whitish, ribbon-shaped bands; horny consistency; translucent; short fracture.—With 50 W. it swells up & forms a cloudy, gelat. mass.—*Constit.*: Bassorin; pectin; starch.—*Uses*: Adhesive; size for fabrics; in pharmacy as excipient for pills, pastilles, &c., as emulsifier, & for suspending heavy powders.

*Trailing Arbutus*.—see **Epigaea**

**Trapa**

(Water Nut).—Fruit (nut) of *Trapa natans*, L. Onagraceae.—*Habit*: Europe.—*Etymol.*: Fr. "caletrappa," an implement having 4 prongs & used in Roman warfare for impeding cavalry, *i.e.*, the water nut has four spines.—*Constit.*: Fixed oil & considerable iron.—Nutrient; Ferug. Vegetable.—*Uses*: In diar. & lithiasis.

**Traumaticin Merck**

(4

Abt. 5% solut. of gutta-percha in chloroform.—Thick, viscid, alm. color. liq.—*Uses*: *Extern.*, in dentistry & surg. as a protective covering for bleeding surf., cuts, &c. Also, as a vehicle for appl. of chrysarobin or o. antisept., in skin dis.

*Tree of Heaven*.—see **Ailanthus**

*Triacid Mixture*.—see **Ehrlich-Biondi's Triacid Mixture**

*Triacid Solution*.—see **Ehrlich's Triacid Solution**

*Triaminodiphenyltolylcarbinol*.—see **Rosaniline**

*Trianosperma*.—see **Tayuya**

*Tribenzylidenedimidine*.—see **Hydrobenzamide**

*Tribromacetaldehyde*.—see **Bromal, Anhydrous**

**Tribromaniline Merck**

(75

(Symmetrical, or Ordinary, Tribromaniline; Aniline Bromide).—By act. of bromine on aniline or one of its salts.— $C_6H_4Br_3N$ , or,  $C_6H_5N \cdot H_2Br_3$  [1:2:116].—Colorl. need.—*Melt.* 119° C.

—*Boil.* 300° C.—*Uses*: As hydrobromide ("bromanide") in neuralgia, in doses of 10 grains (0.6 Gm.).

*Tribromaniline Hydrobromide*.—see **Bromamide**

*Tribromhydrin*.—see **Allyl Tribromide**

*Tribromobenzene, Symmetrical*.—see **Benzene, Tribromo-**

*Tribromomethane*.—see **Bromoform**

**Tribromophenol Merck**

(12

(Bromol).—Fr. aqu. solut. carbolic acid, by bromine W.— $C_6H_2Br_3OH$ .—Wh. to reddish cryst.; disagr., bromine odor; sweet, astring. taste.—*Sol.* A., E., C., G., oils; insol. W.—*Melt.* 95° C.—*Extern.* & *Intern.* Antisept.—*Uses*. *Intern.*, cholera inf., typhoid fever, &c.—*Extern.*, purul. wounds, diphth., &c.—*Doses*  $1\frac{1}{2}$ –8 grains (0.1–0.5 Gm.) per day; children,  $\frac{1}{12}$ – $\frac{1}{4}$  grain (0.005–0.015 Gm.).—*Appl.*, wounds, &c., in 1:30 oil, or 1:8 oint.; diphth., 4% solut in G., or 1:10–30 dust. powd. (talcum).

*Tribromophenolbismuth*.—see **Xeroform**

*Tribromopropane*. } —see **Allyl Tribromide**  
*Tribromopropylene*. }

**Tribromsalol**

(Cordol).— $C_6H_5C_7H_2Br_3O_2$ .—Cryst. powd.—*Sol.*, diffic. A., E.; insol. W.—*Melt.* 195° C.—Intestinal antiseptic, easily decomp. into tribromophenol & salicylic acid; can be used inst. of both.—*Dose* 5–25 grains (0.3–1.6 Gm.); up to 90 grains (6 Gm.) p. d.

*Tributyryn*.—see **Butyryn**

*Tricalcium Orthoarsenate*.—see **Calcium Arsenate**

*Tricalcium Orthophosphate*.—see **Calcium Phosphate**

*Tricarbimide*.—see **Acid Cyanuric**

*Trichloroacetic Aldehyde*.—see **Chloral, Anhydrous**

*Trichloraldehyde Hydrate*.—see **Chloral Hydrated**

*Trichloraldehyde-oxyphenyldimethylpyrazol*.—see **Hypnal**

*Trichlorbutylalcohol, Tertiary*.—see **Chloretone**

*Trichlorethylidenedimide*.—see **Chloralimide**

*Trichlorisopropylalcohol*.—see **Isopral**

*Trichlorobenzene* (or, -zol).—see **Benzene, Trichloro-**

*Trichlorobutyric Aldehyde*.—see **Butyl-chloral**

*Trichlorolactonitrile*.—see **Chloral Hydrocyanate**

*Trichloromethane*.—see **Chloroform**

**Trichloromethyl Sulphite Merck**

100

(Trichloromethylsulphurous Acid).— $CCl_2HSO_3$ .—Colorl. cryst.; odor of chloric acid.—*Sol.* A. sl. W.—Antiseptic.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiaecol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



*Trichlorometres*—*Trich*—see **Chloropicrine**

**Trichlorophenol Merck** (8)

Fr. phenol, by chlorine— $C_6H_3OCl_3$  [1-2-4-6].—Wh. cryst.—*Sol.* A, E.—*Melt.* 65° C.—*Boil.* 243° C.—*Act. exp.*: Germic.—*Uses*: *Intern.*, dipht., ulc., crysp., chancre, &c.—*Extern.*, ns 5-10% oint. or solut.

**Trichlorophloroglucinol Merck** (300)

By passing chlorine into a solut. of phloroglucin in acetic acid— $C_6Cl_3(OH)_3$ —*Boil.* 311° C.—Yellowish, cryst. powd.—*Sol.* A, hot W.—*Melt.* 129° C.

**Trichloroquinone Merck** (175)

Fr. sulphuric acid solut. of phenol by potass. chlorate w. hydrochl. acid— $C_6HCl_3O_2$ —Yellow leaflets.—*Sol.* E, hot A.—*Melt.* 165-166° C.

*Trichlorotertiarybutylalcohol*.—see **Chloretone**

**Tricresol** (43)

Mixt. of ortho-, meta-, & para-cresols fr. coal tar.—Colorl., oily liq.—*Sp. Gr.* 1.045 at 15° C.—*Sol.*, abt. 40 W.—*Antisept.*: Germic.—*Uses*: *Extern.*, 1% solut. or oint. in skin dis., surg. dress., &c. Neither attacks instruments nor benumbs the hands.

**Tricresolamine**

Solut. containing 2% each ethylenediamine & tricresol.—Clear, colorl., alkaline liq.; phenolic odor; turns yellow on expos.—*Sol.* 2 W.—*Antisept.*, like tricresol, but stronger & less irritating.—*Appl.* 1-10:1000 solut.

*Trielaudin*.—see **Elaudin**

**Triethyl Phosphine Merck** (1200)

React.-prod. zinc ethyl w. phosph. trichloride.— $(C_2H_5)_3P$ .—Colorl., mobile liq.; pecul., not unpleas., odor.—*Sp. Gr.* 0.812 at 15° C.—*Misc.* A, E.—*Boil.* 128° C.—*Uses*: Determine carbon disulphide in illuminating gas.

**Triethylamine Merck** (300)

Fr. ethyl iodide or nitrate, by amm.— $(C_2H_5)_3N$ .—Colorl., str'ly alkal. liq.; odor of amm.—*Sp. Gr.* 0.733 at 15° C.—*Sol.*, sl. in W.—*Boil.* 90° C.

**Triethylamine Hydrochloride Merck** (250)

$(C_2H_5)_3N.HCl$ .—Wh. cryst.; subl. without decomp.—*Sol.* W.—*Melt.* 248-250° C.

*Triethyrosaniline Hydrochloride*.—see **Hofmann's Violet**

**Triferrin** (20)

(Iron Pancreatein).—Tastel., reddish powd.; 2.5% P., 22% Fe.—*Sol.*, eas. dil. solut. sol. carbonate; insol. W., dil. HCl.—*Hematinic*.—*Uses*: Chlorosis, anemia, debility.—*Dose* 5 grains (0.3 Gm.) 3 t. p. d.

**Trifolium Arvense**

(Rabbit-foot Clover; Hare's Foot; Calf Clover; Field Clover).—Herb of *Trifolium arvense*, L. Papilionaceae.—*Habit.*: Europe; Asia; natur. in

U. S.—*Etymol.*: Lat. "trifolium" three, & "telum," leaf.—Lat. "arvense," field.—*Uses*: Domestic remedy in gout.

**Trifolium Pratense**

(Meadow Clover; Purple Clover; Cow Clover; Red Clover).—Flower of *Trifolium pratense*, L. Papilionaceae.—*Habit.*: Europe; Asia; Northern Africa, natur. in U. S.—*Etymol.*: "Trifolium," see preceding. "Pratense," fr. Lat. "pratium," meadow, i. e. where the plant grows.—*Constit.*: Tannin (two resins; fat chlorophyll).—*Alter.*: *Sed.*: *Urg.*: Domestic cough remedy.

**Trifolium Repens**

(Dutch Clover; Honey-suckle Clover; White Trefoil; White Clover).—Flowers of *Trifolium repens*, L. Papilionaceae.—*Habit.*: Europe; Asia; Sub-Arctic N. America, natur. in U. S.—*Etymol.*: "Trifolium," see *Trifolium Arvense*. "Repens," fr. Lat. "repo," to crawl, creep.—*Constit.*: Tannin.—*Antiarthritic*.

*Triformol*—*Paraformaldehyde*.—see **Trioxymethylene**

**Trigemin** (30)

(Dimethylaminoantipyrine-butylechloralhydrate).— $C_{17}H_{21}N_3O_3Cl$ .—Fr. pyrimidon & butylechloralhydrate.—Wh., sl. hygrosc. powd.—*Sol.*, in abt. 65 W.; 2 A., B., 10 E.; diffic. ligroin.—*Melt.* 83-85° C.—*Analgesic*; *Sedative*.—*Uses*: Migraine, neuralgia, headache, caries, influenza, & angina.—*Dose* 5-20 grains (0.3-1.3 Gm.).

*Trimide*.—see **Paramide**

*Triiodocresol*. }  
*Triiodometacresol*. }—see **Losophan**

*Triiodomethane*.—see **Iodoform**

**Trillin (Eclectic)** (20)

Alcoh. extr. of *Trillium erectum*, L. (Wake Robin; Birthroot).—Dark-brown powd.—*Astring.*; *Tonic*; *Expector.*—*Uses*: Hasten parturition, check hemorrhage, &c.—*Dose* 2-4 grains (0.12-0.25 Gm.).

**Trillium**

(Bethroot; Birthroot; Indian Balm; Ground Lily).—Rhizome of *Trillium erectum*, L., & o. spec. of *T. Convallariaceae*.—*Habit.*: Canada, south to Tennessee & Missouri; also Japan.—*Etymol.*: Lat. "tri," fr. Grk. "tris," three, referring to the 3-parted flowers & the three lvs.—*Constit.*: Trilline; fixed oil; tannin; starch.—*Alter.*; *Expect.*; *Astring.*—*Uses*: *Intern.*, in asthma.—*Extern.*, indol. ulcers & injuries.—*Dose*: fld. extr., 1-2 fl. dr. (4-8 Cc.).

**Trimethylamine Merck**.—Anhydrous (1500)

(Its aqueous solut. is often misalled "Propylamine").—Fr. methyl iodide, by ammonia.— $C_3H_9N$ , or,  $(CH_3)_3N$ .—Colorl., liquef. gas; fishy, ammoniacal odor.—*Sol.* W., A.—*Sp. Gr.* 0.673 at 0° C.—*Boil.* 9-10° C.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**"Trimethylamine" Merck.**—10% Solution (11  
(More properly "Propylamine").—Solut. propyl-  
amine in W. —  $\text{CH}_3(\text{CH}_2)_2\text{NH}_2 + \text{aq.}$ —Colorl.  
liq.; str. fishy & amm. odor.—*Sol.* W.—Cautic;  
Antisep.; Antirheum.—*Uses:* Rheum., chorea.  
—*Doses:* 10–45 M (0.6–3 Cc.) several t. p. d. in  
rheum.; in chorea & in pneum., 5–12 fl. dr.  
(20–50 Cc.) p. d. in sweetened & flavored water.

**do. Merck.**—True.—33% Solution (100  
Colorl. liq.—*Misc.* W., A.

**Trimethylamine Hydrochloride** (300  
 $\text{C}_3\text{H}_{10}\text{NCl}$ , or,  $(\text{CH}_3)_3\text{N.HCl}$ .—Deliq., colorl. cryst.  
—*Sol.* W.—Decomp. at  $285^\circ\text{C.}$ —*Melt.*  $274\text{--}275^\circ\text{C.}$ —*Uses:* Odorous addition to bait.

**Trimethylamine Sulphate**  
 $\text{C}_9\text{H}_{20}\text{N}_2\text{SO}_4$ , or  $[(\text{CH}_3)_3\text{N}]_2\text{H}_2\text{SO}_4$ .—*Sol.* W.

**Trimethylammoniumvinyl Hydroxide.**—see **Neu-  
rine**

**Trimethylanthraquinone Merck** (600  
Fr. pseudo-cuminoylbenzoic acid, by concen-  
trated sulphuric acid w. heat.— $\text{C}_{17}\text{H}_{14}\text{O}_2$ , or,  
 $(\text{CH}_3)_2\text{C}_6\text{H}_2\text{C}_2\text{O}_2\text{C}_6\text{H}_3\text{CH}_3$ . [1:2:4].—Yellow-  
ish needles.—*Sol.* A., C.—*Melt.*  $161^\circ\text{C.}$

**Trimethylbenzene (or, -zol).**—see **Cumene; Mesi-  
lylene**

**Trimethyl Carbinol.**—see **Alcohol Butylic, Ter-  
tiary**

**Trimethylene Bromide Merck** (70  
(Normal Propylene Bromide; Propylene Dibromide; Dibromopropane).—By adding hydro-  
bromic acid to allyl bromide at  $-16^\circ\text{C.}$ — $\text{C}_3\text{H}_6\text{Br}_2$ ,  
or,  $\text{CH}_2\text{Br.CH}_2\text{CH}_2\text{Br}$ .—Colorl. liq.—*Sol.* A., E.,  
C.—Sp. Gr. 1.974 at  $15^\circ\text{C.}$ —*Boil.*  $165^\circ\text{C.}$

**Trimethylene Chlorobromide Merck** (65  
(Chlorobromopropane).—Reaction-product of  
trimethylene bromide w. mercuric chloride.—  
 $\text{CH}_2\text{Br.CH}_2\text{CH}_2\text{Cl}$ .—Colorl. liq.—Sp. Gr. 1.63 at  
 $8^\circ\text{C.}$ —*Boil.*  $142^\circ\text{C.}$  at 746 Mm.

**Trimethylethylene.**—see **Amylene; Pental**

**Trimethylethylene Bromide.**—see **Bromamylene**

**Trimethylethylenhydrate-ammoniumhydroxide.**  
—see **Choline**

**Trimethylglycine Hydrochloride.**—see **Betaine  
Hydrochloride**

**Trimethylpyrogallol Merck** (85  
(Trimethylester of Pyrogallol).—React.-prod.  
methyl iodide, KOH, & pyrogallol dissolved in  
methyl alc.— $\text{C}_6\text{H}_3\text{O}_3$ , or,  $\text{C}_6\text{H}_3(\text{OCH}_3)_3$ .—Wh.  
need.—*Sol.* A., E.—*Melt.*  $47^\circ\text{C.}$ —*Boil.*  $235^\circ\text{C.}$

**Trimethylxanthine.**—see **Caffeine**

**Trinitrin Solution.**—see **Spirit Glyceril Trini-  
trate**

**Trinitrobutyltolylazoimid.**—see **Musk, Artificial**

**Trinitrocresol Merck** (15  
(Trinitrometaeresol).—By nitration of coal-tar  
cresol, or its sulphonic acid.— $\text{C}_6\text{H}_5\text{N}_3\text{O}_7$ , or,  
 $\text{C}_6\text{H}_3(\text{NO}_2)_3\text{OH}(\text{NO}_2)_3$  [1:2:3:4:5].—Yellow powd.  
—*Sol.*, sl. W.—*Melt.*  $102^\circ\text{C.}$ —Antiseptic.

**Trinitronaphthalene Merck.**—Commercial (3  
By successive nitrations of naphthalene.—  
 $\text{C}_{10}\text{H}_5(\text{NO}_2)_3$ .—Yellowish cryst.—*Sol.* A.; sl. E., C.

**Trinitrophenol.**—see **Acid Picric**

**Triolein Merck** (100  
(Olein).— $\text{C}_3\text{H}_5(\text{OC}_2\text{H}_4\text{C}_{23}\text{H}_{45})_3$ .—Chief constit. fatty  
oils; also in solid fats.—Colorl. to yellowish, oily  
liq.—*Sol.*, sl. A.; v. sol. E., C.—Solidif. at  $-6^\circ\text{C.}$

**Trional** (30  
(Sulphonethylmethane [U. S. P.]; Methylsulfonyl;  
Diethylsulphonemethylmethane).—By  
passing dry hydrochl. acid gas into a mixt. anhy-  
drous mercaptan & methylethyl ketone & oxid'g  
the prod.— $\text{C}_2\text{H}_5\text{SO}_2\text{CH}_3$ , or,  $\text{CH}_3(\text{C}_2\text{H}_5)_2\text{C}(\text{SO}_2-  
C_2\text{H}_5)_2$ .—Colorl., lustr., cryst. powd.; odorl.;  
character. taste.—*Sol.* A., E., 320 W. at  $15^\circ\text{C.}$ ;  
(195 W. at  $25^\circ\text{C.}$ ; more read. boil. W., U. S. P.).  
—*Melt.*  $76^\circ\text{C.}$ —Hypnotic; Sed.—*Uses:* For pro-  
ducing sleep, espec. where there is no pain. Free  
from cumulative action of sulfonal, because com-  
pletely decomp. in the system. Espec. valuable  
in agrypnia due to morphine, cocaine or hydrated  
chloral.—Contraindic. in cardiac diseases, &  
in disturbances of compensation.—*Dose* 15–30  
grains (1–2 Gm.).—*Max.* D. 45 grains (3 Gm.)  
single; 120 grains (8 Gm.) p. day.

**Trioxanthraquinone.**—see **Anthragallol; Pur-  
purine Red**

**Trioxybenzene (or, -zol).**—see **Phloroglucinol**

**Trioxybenzophenone.**—see **Salicylresorcinolke-  
tone**

**Trioxymethylantraquinone.**—see **Emodin**

**Trioxymethylene Merck** (3  
(Paraform; Paraformaldehyde; Polymerized  
Formic Aldehyde).—Fr. formic aldehyde w.  
heat.— $(\text{CH}_2\text{O})_x$ .—Wh., cryst. powd.—*Sol.*, v.  
sl. W., A., or E.—*Melt.*  $171^\circ\text{C.}$ ; gives off  
formaldehyde vapors even at ord. temperat.,  
the evolnt. being increased by heat.—Antisep.;  
Astring.—*Uses:* Intern., cholera nostras, diar.,  
&c. Also pharm.; antisep. bandages & surg.  
dress.—*Dose* 5–15 grains (0.3–1 Gm.) several  
t. p. d.—*Appl.*, in 10% suspension in collodion  
(for warts) 3 t. p. d.—Vapors used in inhal. in  
phthisis, coryza, & tracheobronchitis, also for  
disinf. sick-rooms, clothing, linen & sick-room  
utensils. For the last-named purpose, the uten-  
sils are enclosed in a wooden or tin box in  
which a small quantity of trioxymethylene is  
warmed. The trioxymethylene may also be  
mixed w. calcium chloride & spread on cloths,  
formaldehyde being evolved.—*Antid.*, solut.  
ammon. acetate, stomach siphon, warm baths.

**Comparative Values (see Preface, page v):** 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potas-  
sium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sul-  
phate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine;  
2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

Marked 1 den 10 compr. tabl., ea. 8 grains (0.5 Gm.); 4 grains (0.25 Gm.).

## Tripalmitin Merck (200

(Palmitic)  $\text{C}_{31}\text{H}_{62}\text{O}_6$ .—Constit. of most fats. Wh., cryst. powd.—Sol. E., C.; hot A.—Melt. abt.  $60^\circ\text{C}$ .

## Triphenin (10

(Triphenylphenetidin Merck).— $\text{C}_{17}\text{H}_{15}\text{OC}_2\text{H}_5\text{NHCO}_2\text{C}_6\text{H}_5$ .—Colorl. cryt. powd.—Sol. A., E., mod. W.—Melt.  $120-122^\circ\text{C}$ .—Antipyr & Antineural; reported prompt, without by- or after effects. Uses: Typhoid, pneum., pleurisy, influenza, erysipelas, tuberculosis, migraine, neuralgia, tabetic pains, &c. Doses: Antipyr, 4-10 grains (0.25-0.6 Gm.); antineural, 15-20 grains (1-3 Gm.); 3-4 t. p. d.

## Triphenyldihydroquinoxalin.—see Amarine

## Triphenylguanidine Merck (70

(Alphatriphenylguanidine).—By adding lead oxide to boil. alc. solut. of aniline & thiocarbonyl  $\text{C}_6\text{H}_5\text{N}_3$  or  $\text{NC}_6\text{H}_5\text{C}(\text{NH}_2)_2$ .—Wh. powd. or cryst.—Sol. A., E., C.; v. sl. W.—Melt.  $143^\circ\text{C}$ .—Antiseptic.

## Triphenylguanidine Hydrochloride Merck (100

$\text{C}_{18}\text{H}_{15}\text{N}_3\text{HCl} + \text{H}_2\text{O}$ .—Wh., cryst. powd.—Sol. A., W.—Melt.  $241-242^\circ\text{C}$ .

## Triphenylmethane Merck (100

$\text{C}_{18}\text{H}_{15}$  or  $\text{HC}(\text{C}_6\text{H}_5)_3$ .—Colorl. cryst.—Sol. A., E., C., B.—Melt.  $92^\circ\text{C}$ .—Boil.  $358-359^\circ\text{C}$ .

## Tristearin Merck (15

(Stearic Ester of Glyceryl; Stearin).—Fr. the more solid natural fats.— $\text{C}_{57}\text{H}_{110}\text{O}_6$  or  $\text{C}_{18}\text{H}_{35}(\text{C}_{18}\text{H}_{35}\text{O}_2)_3$ .—Wh. powd.; odorl.; tastel.—Sp. Gr. 0.987 at  $10^\circ\text{C}$ .—Sol. E., boil. A.—Melt., at  $55^\circ\text{C}$ ; on further heat solidifies, & melts again at  $72^\circ\text{C}$ .—Uses: Technical.

## Triticum.—U. S. P.

(Couch Grass; Dog Grass; Graminis; Quick Grass).—Dried rhizome of *Agropyron repens* (L.), Beauvois, Gramineæ, gathered in spring.—Habit.: Europe; Northern Asia; natur. in U. S.—Etymol.: Fr. Lat. "tero, terere," from "tritum," to rub or grind, i.e., the seeds must be ground for eating. "Agropyron" fr. Grk. "agros," a field, & "pyros," wheat. "Repens" fr. Lat. "repo," to creep or crawl, i.e., the stem inclines to crawl on the ground.—Constit.: Triticin; sugar (levulose); acid malates; inosite. —Aper.; Diur. Lessens irritation in diseases of urinary organs.—Uses: Cystitis and o. diseases of genito-urin. organs.—Doses: 30-180 grains (2-12 Gm.).—Aqu. extr., 8-30 grains (0.5-2 Gm.).—Fld. extr., 1-3 fl. dr. (4-12 Cc.).

## Tritopine Merck (2500

Alkaloid fr. opium.— $\text{C}_{45}\text{H}_{55}\text{N}_2\text{O}_7$ .—Wh. powd.—Sol. A., C., caustic soda solut., E.—Melt.  $182^\circ\text{C}$ .—Tetanic poison, like strychnine.

## Tropacocaine Hydrochloride Merck (550

(Benzoylpseudotropine Hydrochloride).—Fr. narrow-leaf var. of *Erythroxylon Coca*, Lam., grown in Java, also synthet.— $\text{C}_{17}\text{H}_{19}\text{NO}_2\text{HCl}$ , or,  $\text{C}_6\text{H}_5\text{CH}_2\text{CH}(\text{NCH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CHO})\text{CO}_2\text{C}_6\text{H}_5\text{HCl}$ .—Colorl. cryt.—Sol. W.—Local Anesth.—Uses: Frct. of cocaine hydrochloride. Solut. claimed more stable, easily sterilizable, & to have less depressing effect on heart.—Appl., 3% solut. in 0.6% sod. chloride solut. in ophthalm., dentistry, in general surgery by the Schleich infiltration method, in regional anesthesia accord. to Oberst, & in lumbar anesthesia accord. to Bier's method.

## Tropæoline D.—see Methyl Orange

## Tropæoline D Paper.—see Methyl Orange Paper

## Tropæoline O.—see Yellow T

## Tropæoline O O.—see Diphenylamine Orange

## Tropæoline O O O No. 1 Merck (8

(Alphanaphthol Orange; Orange I; Sodium Azobeta-naphtholsulphanilate).— $\text{C}_{16}\text{H}_{11}\text{N}_2\text{O}_2\text{SNa}$ .—Reddish-brown powd.—Sol. W.—Uses: As indicator in volumetric analysis (acids = yellow; alkalies = red).

## Tropæoline O O O No. 2 Merck (7

(Betanaphthol Orange; Orange II; Mandarin; Orange Extra; Chrysaureine; Sodium Azobeta-naphtholsulphanilate).— $\text{C}_{16}\text{H}_{11}\text{N}_2\text{O}_2\text{SNa}$ .—Yellowish-red powd.—Sol. W.—Uses: Dye, & coloring; not well adapted for use as indicator, as color change too slight.

## Tropæoline Paper

Wh. paper impregnated w. a satur. alc. solut. tropæoline O O.—Uses: For detecting free HCl in gastric juice (lilac color).

## Tropæoline R.—see Yellow T

## Tropine Merck.—Pure (600

(Methyloxyethylpyridinetetrahydride).—Artif. alkaloid obt. by heat. atropine or hyoscyamine w. baryta water.— $\text{C}_{11}\text{H}_{15}\text{NO}$ .—Hygros., wh. cryst.—Sol. W., E., C.—Melt.  $61^\circ\text{C}$ .—Boil.  $229^\circ\text{C}$ .

## Tropine Sulphate Merck (600

$(\text{C}_{11}\text{H}_{15}\text{NO})_2\text{H}_2\text{SO}_4$ .—Wh. cryst.—Sol. W., A.

## Tropon

Albuminoid contain. 90% albumen digestible by pepsin.—Brownish powd.—Insol. W.—Uses: Nutrient for invalids & in convalescence.

## Trumpet Weed.—see Eupatorium Purpureum

## Trypsin Merck (300

Enzyme fr. pancreatic juice, or the pancreas, of animals.—Converts albuminates, at body temperature & in alkaline solut., successively into globulin-like substances, peptone, & finally tripeptone.—Yellow to grayish-yellow powd.—

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



*Sol.* W.—Proteolytic.—*Uses*: Artificially peptonize milk; & somet. w. o. ferments in duodenal dyspep. in diabetes. Acts in an alkal. medium. *Dose* 8–25 grains (0.5–1.6 Gm.) at meals, or after, in keratin-coated pills.—*Appl.*, as solvent of false diphtherit. membrane in 10% solut. prepared by digesting trypsin 4 hours in 1:1000 solut. salicylic acid, & then making alkaline.

### **Tuberculin Koch-Merck.—For cattle & pigs**

(Koch's Lymph).—Glycerin extr. fr. pure cultures of the tubercle bacillus.—Transp., dark-brown liq.—*Sol.* W., G.—Effects on animals having the tuberculous diathesis are very marked, & therefore it enables the physician to discover these dis. at a very early stage.—*Uses*: Diagnostic for tuberculosis in domestic animals; on hypoderm. inj. of remedy, a rise of temperature (1.5° C.) occurs if the animal is tuberculous.

### **Tuberculol Merck**

Tuberculous toxin free fr. secondary products. Contains in conc. form the toxins of both the culture fluid & the bacteria cells, hence eminently adapted for immunizing against tuberculosis, & also for therapeutic employment in tuberculous affections.—Brown powd.—*Sol.* W.—The toxic unit is represented by the quantity (15 m [1 Ce.]) required to kill a healthy guinea-pig weighing abt. 8 oz. (250 Gm.) within 4 days.—Used hypodermically.

*Tubocurare.*—see **Curare**

*Tubocurarine.*—see **Curarine**

*Tulip-tree.*—see **Liriodendron**

### **Tumenol.—Crude** (11)

Mixt. of sulphones & sulphonic acids fr. bituminous minerals.—Dark-brown, or blackish-brown liq.—*Sol.* E., B.—Antisep.; Germic.—*Uses*: *Extern.*, in 5–10% solut. in E., G., or A., for ecz., prurigo, & o. skin dis. Also as 5% oint.

#### **do.—Oil** (13)

(Tumenolsulphone).—Ether. extr. fr. tumenol previously diss. in caustic soda.—Dark-yellow, thick liq.—*Sol.* E., B.—Antiseptic.—*Uses*: *Extern.*, skin dis., in 5 to 10% solut. or oint.

#### **do.—Powder** (22)

(Tumenolsulphonic, or Sulphotumenolic, Acid).—Active ingredient of tumenol.—Dark-yellow powd.; bitter taste.—*Sol.*, eas. W.—Dermic; Antisep.—*Uses*: *Extern.*, dust. powd.; also in skin dis. as 5% oint. or 10% ether-alcoh., or glycerin-aqu., solut.

*Tumenolsulphone.*—see **Tumenol Oil**

### **Tungsten Merck.—Pure** (15)

(Wolfram; Scheelium).—*Etymol.*: “Tungsten” signifies “heavy-stone”; “Wolfram” is an old, miner's name for the metal, fr. “wolf-rahm,” wolf's cream (hence also designated by Agricola “spuma lupi”), or fr. “wolfrig,” wolfish, biting,

because on fusing tin ores w. wolfram the tin content is reduced.—Metal.—W.—Light, gray powd.; metallic luster.—*Sp. Gr.* 19.129 at 15° C.—Converted by nitric & nitrohydrochloric acids into WO<sub>3</sub>.

### **Tungsten Merck.—Commercial** (6)

Hard, brittle, gray powd.—Imparts great resistance, ductility, & hardness to steel.—*Uses*: Techn., manuf. alloys, tungsten steel, tungsten German silver, gun metal (tungsten manganese copper), tungsten white metal, &c.

### **Tungsten Bronze Merck.—Orange** (50)

(Tungsten-sodium Bronze; Saffron Bronze; Tungsten-sodium Tungstate).—By diss. tungsten trioxide in melted sodium tungstate.—Na<sub>2</sub>WO<sub>4</sub> + W<sub>2</sub>O<sub>5</sub>.—Gold-like leaflets.—Insol. in usual solvents.—*Uses*: Pigment.

### **Tungsten Bronze Merck.—Violet** (50)

(Potassium Tritungstate).—K<sub>2</sub>W<sub>3</sub>O<sub>9</sub> + blue tungsten oxide, W<sub>2</sub>O<sub>5</sub>.—*Uses*: Bronze pigment.

### **Tungsten Oxide Merck** (15)

W<sub>2</sub>O<sub>5</sub>.—Blue powd.—Insol. in aqua regia.

### **Tungsten Oxychloride Merck** (100)

WOCl<sub>4</sub>.—Dark-red cryst.—*Boil.* 227.5° C.—*Melt.* 208–210° C.—Decomp. by W.—*Caut.* Keep in sealed glass containers as it is decomposed by moisture in air.

*Tungsten-sodium Bronze.* } —see **Tungsten**  
*Tungsten-sodium Tungstate.* } **Bronze, Orange**

*Tungsten Trioxide.*—see (Acid) **Tungstic Anhydride**

### **Tupelo**

(Large Tupelo; Swamp Tupelo; Cotton Gum-tree; Black Gum; Sour Gum).—Wood of *Nyssa aquatica*, L. Santalaceae, Cornaceae.—*Habit*: Southern U. S.—*Etymol.*: “Tupelo” is the American aboriginal name for the wood. “Nyssa” fr. Grk. “nysa,” the name of a water nymph, the nurse of Bacchus.—*Uses*: Making sponge-tents

*Turkey Corn.*—see **Corydalis**

*Turlington's Balsam.*—see **Balsam Traumatic**

*Turmeric.*—see **Curcuma**

*Turmeric Paper.*—see **Curcuma Paper**

*Turmeric Yellow.*—see **Curcumin**

*Turnera.*—see **Damiana**

*Turnsole.*—see **Litmus**

*Turpentine Camphor.*—see **Terpene Hydrochloride**

### **Turpentine Chian Merck** (12)

(Chios Turpentine; Scio Turpentine; Cyprian Turpentine).—Oleo-resin fr. *Pistacia Terebinthus*, L. Anacardiaceae.—*Habit*: Island of Chios or Scio; Western Asia; Mediterranean basin.—*Etymol.*: “Terebinthus” fr. Grk. “terein,” to

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



trous, fr. the color being regulated by varying the bark.—Yellowish, greenish, or bluish-green; translucent liquid, passed around sides, lower and back than other turpentine, gradually hardened by age.—*Constit.*: Volatile oil, resin, bitter extract.—*Uses*: Camomile, geranium. *Dose*: 3-7 grains (0.2-0.4 Gm.) several 3-4 daily, in oil or with petroleum (5-10).

*Turpentine Dihydrochloride*.—see **Terpene Dihydrochloride**

### Turpentine, French

(Bordeaux Turpentine, Galipot).—Oleo-resin fr. *Pinus Pinaster* & other Conifers.—*Habit.*: Southern France. *Etymol.*: See Turpentine, Chian.—*Constit.*: Volatile oil, resin.—*Uses*: In ointments & plasters as rubefacient.

*Turpentine Monohydrochloride*.—see **Terpene Hydrochloride**

*Turpentine Spirit*.—see **Oil Turpentine**

### Turpentine, Venice

Oleo-resin fr. *Larix europaea*, De C., or *Pinus Larix*, L. Coniferae.—*Habit.*: Middle & southern Europe. *Etymol.*: See Turpentine, Chian.—Yellow, sometimes greenish, limpid, tenacious, thick liquid, pleasant, arom. odor; hot, pungent, somewhat bitter taste; becomes hard & brittle on prolonged expos. to air.—*Sol.*: glae. acetic acid, amylie alcohol, acetone, caustic alkalies; slowly but freely in A.—*Constit.*: Volatile oil; resin.—*Uses*: *Intern.*, in chronic vesical & bronchial catarrhs.—*Extern.*, rubefac. in form of plasters & ointments.

*Turpeth Mineral*.—see **Mercury Subsulphate**

*Turpeth Root*.—see **Ipomœa Turpethum**

*Turtle Head*.—see **Chelone**

### Tussilago

(Coughwort; Coltsfoot).—Flowers & lvs. of *Tussilago Farfara*, L. Compositae.—*Habit.*: Northern Europe & Asia; natur. in Northeastern U. S.—*Etymol.*: Fr. Lat. "tussis," cough; "farfara," fr. Lat. "far," flour, & "ferre," to bear, referring to the appearance of the lower surface of the leaf.—*Constit.*: *Flowers*: Bitter extractive & pectin.—*Lvs.*: Pectin; bitter extractive; tannin; volatile oil; resin; saponin; wax; caoutchouc.—*Emoll.*: Demulc.; Tonic; Errhine.—*Uses*: *Flowers & Lvs.*: In bronchial catarrhs, coughs, colds, &c., in form of tea.—*Extern.*, in poultice.—*Dose*: *Flowers*: Teacupful of 1:16 decoct.—*Lvs.*: fld. extr., 30-60 ℥ (2-4 Cr.).

### Tussol (33)

(Antipyrine Amygdalate; Antipyrine Mandelate; Phenylglycolantipyrine).— $C_{16}H_{15}CH_2OH \cdot COOH \cdot C_{10}H_7N_3O$ .—Wh. powd.—*Sol.*: eas. W.—Specific in whoop-cough.—*Dose*: 1-4-8 grains (0.06-0.25-0.5 Gm.) 4-6 t. p. d., according to age of child.

*Twinklief*.—see **Jeffersonia**

### Typhoid Diagnostic Ficker-Merck

A special trained & sterilized typhoid culture, which serves for carrying out the Gruber-Widal typhoid test, & which obviates the use of living bacilli & the microscope.—In carrying out the test, some blood serum fr. the patient is mixed w. a sterilized solvent such as chloroform, & a part of this mixed in turn w. the diagnostic fluid. If the reaction is positive when the bacteria present in the diagnostic liquid coagulate & sink to the bottom, while the liquid portion becomes clear.

### Typhoid Ox-bile Diagnostic Kayser-Conradi-Merck

Sterilized ox-bile marketed in: (1) sealed tubes, & (2) tubes closed w. a rubber stopper & parchment-paper cap. Each tube cont. 75 ℥ (5 Ce.) of the sterilized ox-bile, sufficient for diagnostic purposes.—Abt. 10 ℥ (2.5 Ce.) of blood drawn fr. the ear lobe or finger tip of the patient suspected of having typhoid are added to the contents of a tube; the latter is then properly closed w. the accompanying cap, & heated in an incubator at 37° C. for 14-20 hrs. Even if only 2-4 typhoid germs were present, the incubated material enables pure typhoid cultures to be obtained with certainty.

*Tyrolol*.—see **Thymotal**

### Tyrosine Merck (2000)

(Paraoxyphenylalphaaminopropionic Acid).—Deriv. of proteids. Formed by heating albuminoids w. potassa.— $C_9H_{11}NO_3$  or  $C_9H_9(OH) \cdot C_2H_3(NH_2) \cdot CO_2H$ .—Fine, wh. need.—*Sol.*, sl. in W., but eas. suspended.—Decomp. on heating.

## U

*Ulexine*.—see **Cytisine**

*Ulmaria*.—see **Spiræa**

### Ulmus.—U. S. P.

(Elm; Slippery Elm).—Dried bark of *Ulmus fulva*, Michaux. Ulmaceae, deprived of its periderm.—*Habit.*: Eastern & central N. America.—*Etymol.*: Fr. Celtic "elm" or "ulm," trunk.—Lat. "fulvus," deep-yellow, tawny, referring to color of liber bark.—Flat pieces of varying length & width,  $\frac{1}{8}$ - $\frac{1}{6}$  in. (3-4 Mm.) thick; extern. light-brown w. occas. dark-brown patches; intern. yellowish-brown; fibrous fraet.; mucil. taste.—*Constit.*: Much gum; little tannin.—Demulc.; Nutrient.—*Uses*: *Intern.*, as mucil. in diar., dysent., inflam. of urinary passages.—*Extern.*, as poultice for abscesses, felons, &c.—*Dose*, of mucilage, 4-16 dr. (15-60 Ce.).

### Ulmus Campestris

(English Elm; European Elm).—Dried inner bark of *Ulmus campestris*, L. Ulmaceae.—*Habit.*: Europe. *Etymol.*: See preceding. Lat. "campestris" fr. "campester," a field, i.e., where the tree grows.—Yellowish to reddish-

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



brown pieces, somewh. thinner than that of *U. fulva*; alm. odorless; bitterish, astring., mucil. taste.—*Constit.*: Mucilage; tannin.—*Teniacide*; Astring.; Dermal.—*Uses*: Chronic skin diseases; cataplasms.—*Dose*: Given in 10–15:200 decoct.

*Umbrella-Leaf*.—see **Petasites**

*Uncomocomo*.—see **Pannum**

*Uragoga*.—see **Ipecac**

*Ural*.

*Uraline*. } —see **Urethane, Chloral-**

*Uralium*. }

### Uramil Merck (150)

(Murexane; Dialuramide; Aminobarbituric Acid; Aminomalonylurea).—By boiling alloxantin with ammonium chloride. —  $C_4H_5N_3O_3$  or  $CO-(NH.CO)_2CH.NH_2$ .—Wh. to reddish cryst.—*Sol.*, cold sulphuric acid or alkali; insol. W.

### Uranine Merck (10)

(Uranine Yellow).— $C_{20}H_{10}O_5Na_2$ .—Sod. salt of fluorescein.—Yellowish-brown powd.—*Sol.* A., W.—*Uses*: Test for death. If abt. 15 grains (1 Gm.) be injected into human body, the whites of the eyes will acquire a greenish color within 1 hour if life still exists, otherwise no coloration is observed.—*Techn.*, dyeing silk & wool yellow.

### do. Merck.—II (8)

*Uses*: Examining subterranean waters. No toxic action on fish. Serves to ascertain source of springs, connection between streams & sea, determ. approx. vol. of water delivered by a spring, detect. contamination of polluted water of streams in drinking water, infiltration of soil with waste waters of factories, &c. Proportion of 1:10,000,000 W. employed; still efficient in solut. of 1:2,000,000,000.

*Uranine Yellow*.—see **Uranine**

### Uranium Merck.—Fused (600)

*Etymol.*: So named by its discoverer, Klaproth, in 1789, because its discovery occurred at the time the planet Uranium was discovered.—*Metal*.—U.—Black, gran. mass.—Sp. Gr. 18.4.—Burns in air at 200° C. & becomes converted into uranouranic oxide. On vigorous shaking, the metallic particles exhibit decided phosphorescence.—*Uses*: *Techn.*, only in form of alloy in manuf. gun barrels.

### "Uranium Acetate" Merck (8)

(Uranium & Sodium Acetate).— $UO_2(C_2H_3O_2)_2 \cdot NaC_2H_3O_2$ .—Yellow, tetrahedr. cryst.—*Sol.* W.—*Uses*: Chem. anal., in determ. phosphates.

### Uranium Acetate Merck.—Free fr. Sodium (11)

(Uranyl Acetate).— $UO_2(C_2H_3O_2)_2 + 2H_2O$ .—Sm., yellow cryst.—*Sol.* A.; sl. W.—Antiseptic.—*Uses*: Acute coryza; also chemically.—*Appl.* 0.5–1% aq. solut. 2–3 t. p. d. snuffed up the nose.—*Caut.* Violent Poison! Keep in the dark.

### Uranium Acetate Merck.—Reagent.—Free fr. Sodium (35)

$UO_2(CH_3COO)_2 + 2H_2O$ .—Yellow, cryst. powd.—*Sol.*, eas. W.—As the prep. alm. always cont. some basic salt, a clear solut. is obt. only on add. a little  $C_2H_4O_2$ .—*Tests*: ( $H_2SO_4$ ) 1 Gm. + 20 Cc.  $H_2O$  + 2–3 Cc. dil.  $C_2H_4O_2$  + solut.  $BaCl_2$ —no turb.—(Na) 5 Gm. + 10 Cc. dil.  $C_2H_4O_2$  + 200 Cc.  $H_2O$ ; boil; add while boil. excess  $NH_4OH$ ; filter; evap. filtrate to dryness; ignite res.; diss. res. in  $H_2O$ , & titrate w. norm. HCl (methyl orange indic.)—not more than 0.1 Cc. norm. HCl should be required up to point where red color develops.—(Earths) 1 Gm. + 20 Cc.  $H_2O$  + 2–3 Cc. dil.  $C_2H_4O_2$  +  $NH_4OH$  + solut. ammon. carbon.—solut. should remain clear.—(Uranous Salt) 1 Gm. + 20 Cc.  $H_2O$  + 1 Cc. dil.  $H_2SO_4$  + 0.1–0.2 Cc. decinorm.  $KMnO_4$ —solut. should acquire a red color.—(Foreign Met.) a: 5 Gm. + 500 Cc.  $H_2O$  + 5 Cc. HCl (sp. gr. 1.124); boil; pass in  $H_2S$  gas—no react.; b: to liq. obt. from test for earths add 2–3 drops ( $NH_4$ )HS—no dark-brown color, & no ppt.—*Uses*: Prepar. volumetric soluts.; detect. Na, & determ.  $H_3PO_4$ .

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

### Uranium Benzoate Merck (18)

$UO_2(C_7H_5O_2)_2$ .—Yellow powd.—*Sol.*, sl. W., & A.

### Uranium Borate Merck (30)

Light-yellow powd.—*Sol.*, acids; insol. W.

### Uranium Bromide (25)

(Uranium & Ammonium Bromide; Uranyl Ammonium Bromide).— $UO_2(NH_4)_2Br_2 \cdot 2H_2O$ .—Deliq. brownish-yellow cryst.—*Sol.* W.—Keep well stoppered.

### Uranium Chloride Merck.—Highest Purity, free fr. alkali (25)

(Hydrated Uranyl Chloride).— $UO_2Cl_2 + H_2O$ .—Yellow, deliq. cryst.—*Sol.* W., A., E.—*Caut.* Poison! Keep fr. air.

### do. Merck (8)

(Uranium Ammonium Chloride; Uranyl Ammonium Chloride).— $UO_2(NH_4)_2Cl_2 \cdot 2H_2O$ .—Greenish-yellow, deliq. cryst.—*Sol.* W.

### Uranium Ferricyanide Merck (35)

$(UO_2)_3[Fe(CN)_6]_2$ .—Reddish-brown powd.—Insol. W.

### Uranium Iodide Merck (11)

(Uranyl Ammonium Iodide; Uranium Ammonium Iodide).— $UO_2(NH_4)_2I_2 \cdot 2H_2O$ .—Black, cryst. mass.—*Sol.* W.

### Uranium Nitrate Merck.—Highest Purity.—Free fr. sodium (7)

(Uranyl Nitrate).— $UO_2(NO_3)_2 + 6H_2O$ .—Lemon-yellow, fluorese., rhombic prisms.—*Sol.* W., A., E.—Antidiabetic.—*Uses*: Intern., diab.—

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

Also photo., chem., & techn. — *Dose* 3-15 g. aq. (0.2-1 Gm.) 2-3 t. p. d. after meals. — *Caut.* Poison!

**Uranium Nitrate Merck** (3)

*Uses:* Photogr. & techn. in manuf. uranium glaze.

**Uranium Nitrate Merck.—Reagent** (20)

(Uranyl Nitrate). —  $\text{UO}_2\text{NO}_3 \cdot 6\text{H}_2\text{O}$ . — Yellow cryst.; greenish luster by reflect. light; effloresc. superfic. in dry air. — *Sol.*, eas. W. A. I. — Aq. solut. acid to litmus paper. — *Test:*  $\text{H}_2\text{SO}_4$  1-20 aq. solut. + solut.  $\text{BaCl}_2$  no turb. within 15 min. — (*Alkali Salts*) gentle 1 Gm.; treat res. w. 20 Ce.  $\text{H}_2\text{O}$ ; filter; evap. filtrate to dryness; no weighble res. — (*Earths*) 1 Gm. 20 Ce.  $\text{H}_2\text{O}$  +  $\text{NH}_4\text{OH}$  + solut. ammon. carbon in excess solut. should remain clear. — (*Uranous Salt*) 1 Gm. 1-20 Ce.  $\text{H}_2\text{O}$  + 1 Ce. dil.  $\text{H}_2\text{SO}_4$  + 0.1-0.2 Ce. decinorm.  $\text{KMnO}_4$  — solut. should acquire red color. — (*Foreign Mat.*) a: to liq. obt. fr. test for earths add 2-3 drops  $(\text{NH}_4)\text{HS}$  no dark-brown color, & no ppt.; b: 5 Gm. 100 Ce.  $\text{H}_2\text{O}$  5 Ce.  $\text{HCl}$  (sp. gr. 1.124); boil; pass in  $\text{H}_2\text{S}$  gas — no react. — *Uses:* Indicator; prepar. volumetric soluts.; detect. morphine, & determ. arsenic & phosphoric acids.

*Note.* — For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Uranium Oxalate Merck** (20)

(Uranyl Oxalate). —  $\text{UO}_2\text{C}_2\text{O}_4 \cdot 3\text{H}_2\text{O}$ . — Yellow powd. — *Sol.*, acids; insol. W. — *Caut.* Poison!

**Uranium Oxide Black Merck.—Pure** (30)

(Uranous Oxide). —  $\text{UO}_2$ . — Grayish-black powd.; formerly supposed to be the metal. — *Sol.*, acids.

**Uranium Oxide, Hydrated.** — see **Ammonium Uranate**

**Uranium Oxide Red Merck.—Pure** (35)

(Uranium Trioxide; Uranic Oxide, or Anhydride; Uranic Acid). —  $\text{UO}_3$ . — Orange-red powd. — *Sol.*, mineral acids, & alkalis. — *Uses:* Techn., paint, porcelain, & as mordant in calico printing.

**Uranium Oxide, Yellow.** — see **Sodium Uranate**

**Uranium Oxychloride.** — see **Uranium Chloride**

**Uranium Oxyiodide.** — see **Uranium Iodide**

**Uranium Phosphate Merck** (25)

(Uranic Phosphate; Monouranylorthophosphate). —  $\text{UO}_2\text{HPO}_4$ . — Yellow powd. — *Sol.*, acids; insol. W.

**Uranium Sulphate Merck.—Highest Purity, free fr. sodium** (8)

(Uranyl Sulphate). —  $\text{UO}_2\text{SO}_4 \cdot 3\text{H}_2\text{O}$ . — Lemon-yellow cryst. — *Sol.* W.

**do. Merck** (7)

(Uranium Sodium Sulphate; Uranyl Sodium Sulphate). —  $\text{UO}_2\text{SO}_4 \cdot \text{Na}_2\text{SO}_4 \cdot 2\text{H}_2\text{O}$ . — Yellowish-green cryst. — *Sol.* W.

**Uranium Tetrabromide** — see **Uranium Bromide**

**Uranium Trioxide.** — see **Uranium Oxide, Red**

**Uranium Yellow.** — see **Ammonium (or Sodium) Uranate**

**Uranium & Ammonium Carbonate Merck.—Cryst.** (35)

(Uranylammonium Carbonate). —  $\text{UO}_2\text{CO}_3 \cdot 2\text{NH}_4\text{CO}_3$ . — Sm., yellow, transp. cryst.; decomp. by air. — *Sol.* W. — *Uses:* Techn., in uranium-yellow glazes. — *Caut.* Keep well stoppered. Poison!

**Uranium & Ammonium Fluoride Merck** (35)

$\text{UO}_2\text{F}_2 \cdot 3\text{NH}_4\text{F}$  aq. — Green, fluoresc. cryst. — *Sol.*, eas. W.; sl. in hydrofluoric acid; insol. A. — Fluoresces on expos. to Röntgen rays.

**Uranium & Barium Oxide Merck.—Orange** (25)

(Barium Diuranate). —  $\text{BaU}_2\text{O}_7$ . — Orange powd. — *Sol.*, acids. — *Caut.* Poison!

**do. Merck.—Yellow** (25)

$\text{BaU}_2\text{O}_7$ . — Yellow powd. — *Sol.*, acids. — *Caut.* Poison!

**Uranium & Calcium Phosphate Merck** (60)

(Uranylcadium Phosphate). —  $(\text{UO}_2)_2\text{Ca}(\text{PO}_4)_2 + 3\text{H}_2\text{O}$ . — Greenish-yellow cryst. — *Sol.* W.

**Uranium & Potassium Nitrate Merck** (50)

(Uranylpotassium Nitrate). —  $2(\text{KNO}_3) \cdot \text{UO}_2(\text{NO}_3)_2$ . — Greenish-yellow, cryst. powd. — *Sol.*, eas. W.

**Uranium & Potassium Sulphate Merck** (25)

$\text{K}_2\text{SO}_4 \cdot \text{U}(\text{SO}_4)_2 \cdot \text{H}_2\text{O}$ . — Greenish-yellow, cryst. powd. — *Sol.*, eas. W.

**Uranium & Sodium Acetate.** — see "Uranium Acetate"

**Uranium & Strontium Oxide Merck** (35)

(Strontium Diuranate). —  $\text{SrU}_2\text{O}_7$ . — Yellow powd. — *Sol.*, acids.

**Uran.** — see **Curare**

**Urea Merck.—Highest Purity, Medicinal** (5)

(Carbamide). — Constit. of urine. Formed artif. by heating solut. of amm. cyanate. —  $\text{CH}_5\text{N}_2\text{O}$ , or,  $\text{CO}(\text{NH}_2)_2$ . — Wh. cryst. — *Sol.* W., 20 A. — *Melt.* 132° C. — Diur.; Antituberc. — *Uses:* Hepatic cirrhosis, simple serous pleurisy (to obviate puncture), renal calculus, & tuberculosis. — *Techn.*, rendering explosives stable. — *Doses:* 10-20 grains (0.6-1.3 Gm.) in water, 3-4 t. p. d.; in renal calculus, 150-300 grains (10-20 Gm.) p. d., for a period of 2 to 3 weeks. — *Incomp.*, hydrated chloral, lead acetate.

**Urea Acetate Merck.—Fused** (12)

Wh., cryst. crusts; var. compos. — *Sol.* W., A.

**Urea Citrate Merck** (10)

(Acid Urea Citrate). —  $\text{CO}(\text{NH}_2)_2 \cdot \text{C}_6\text{H}_8\text{O}_7$ . — Wh., cryst. powd. — *Sol.* W., A.

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Urea Hydrochloride Merck** (15)

$\text{CO}(\text{NH}_2)_2 \cdot \text{HCl}$ .—Wh. to faintly yellowish cryst., or deliq. leaflets; decomp. by W.—*Caut.* Keep dry & fr. air.

**Urea Nitrate Merck** (15)

$\text{CO}(\text{NH}_2)_2 \cdot \text{HNO}_3$ .—Wh. leaflets.—*Sol.*, sl. W.; A.

**Urea Oxalate Merck** (6)

$\text{CO}(\text{NH}_2)_2 \cdot \text{C}_2\text{H}_2\text{O}_4$ .—Wh. cryst.—*Sol.* 23W., 60A.

**Urechites**

(Savannah Flower; Yellow-flowered Nightshade).—Lvs. of *Urechites suberecta*, Jacq. Apocynaceae.—*Habit.*: Jamaica.—*Etymol.*: Fr. Lat. "uro," I burn, & Grk. "echis," nettle, because the plant climbs & winds about other plants, & causes a burning sensation in mucous surfaces brought into contact with it.—*Constit.*: Urechitic acid; urechitoxin,  $\text{C}_{13}\text{H}_{20}\text{O}_5$ ; urechitin,  $\text{C}_{25}\text{H}_{42}\text{O}_8$ ; urechotonin.—*Antipor.*: Tonic; Heart Depressant.—*Uses*: Intermitt. & sthenic fevers.—*Dose*: Fld. extr., 2–10 M (0.12–0.6 Cc.).—*Antid.*, emetics, stomach siphon, alcohol, ammonia, strong coffee, electricity, &c.

**Urethane Merck** (10)

(Ethyl Carbamate; Ethylurethane).—Fr. carbonic ether, by amm.; or fr. urea by ethyl alc., w. heat.— $\text{C}_3\text{H}_7\text{NO}_2$ , or  $\text{CO}(\text{NH}_2) \cdot \text{OC}_2\text{H}_5$ .—Colorl. cryst.; faint, peculiar odor; saltpeter-like taste.—*Sol.* 0.6 A., 1 W., 1 E., 1.5 C., 3 G., 20 olive oil (Vulpis).—*Melt.* 48–50° C.—*Boil.*, abt. 180° C.—*Hypn.*: Antispasmodic; Sed. *Uses*: Insom., eclampsia, nerv. excit., tetanus, & as antid. in strychnine, resorcinol, & picrotoxin poison. Does not interfere w. circulation, or secretion; no unpleasant after-effects; in large doses increases respiration without affecting pulse or temp., & produces a mild, natural sleep. In eclampsia it should be given perenema.—*Doses*: Sedative, children, 4–8–15 grains (0.25–0.5–1 Gm.) 1–4 t. p. d.; hypn., 30–45 grains (2–3 Gm.) in 3 portions at  $\frac{1}{2}$ –1 hr. intervals, in 10% solut.—*Max. D.* 75 grains (5 Gm.) single; 150 grains (10 Gm.) daily.—*Incomp.*, alkalies, acids, butyl-chloral hydrate, antipyrine, camphor, carbolic acid, euphorin, menthol, naphthol, resorcinol, salol, or thymol, in trituration.

**Urethane, Chloral-, Merck** (15)

(Chloralurethane; Urealium; Ural; Uraline).—By heating chloral w. urethane, then successively adding conc. hydrochl. & sulphuric acids.— $\text{C}_2\text{H}_5\text{CH}(\text{OH})(\text{NH})\text{COOC}_2\text{H}_5$ .—Colorl. cryst.—*Sol.* A., E.—*Melt.* 103° C.—*Hypn.*—*Uses*: Produce sleep in epileptic dementia, hypochondria, & mitral insufficiency.—*Dose* 10–45 grains (0.6–3 Gm.).

**Urethane, Ethylidene-, Merck** (40)

(Ethylideneurethane).—Fr. solut. of urethane in aldehyde, by dil. hydrochl. acid.— $\text{C}_8\text{H}_{16}\text{N}_2\text{O}_4$ , or  $\text{CH}_3\text{CH}(\text{CO}[\text{NH}]\text{OC}_2\text{H}_5)_2$ .—Colorl. cryst.—*Sol.* A., E., hot W.—*Melt.* 125–126° C.—*Hypnotic*(?).—*Caut.* Keep well stoppered & dry.

**Urethylane Merck** (40)

(Methylurethane).— $\text{C}_2\text{H}_5\text{NO}_2$ , or  $\text{CO}(\text{NH}_2)\text{OCH}_3$ .—Colorl. cryst.—*Sol.* W., A.—*Melt.* 52° C.—*Boil.* 177° C.

**Urginea Scilla.**—see **Scilla****Uric Oxide.**—see **Acid Uric****Uridin** (4)

Mixt. of sod. sulphate, chloride, & citrate, & lithum citrate.—Wh. powd.—*Sol.*, eas. W.—Antilithic.—*Uses*: Uric-acid diathesis.—*Dose* 15–30 grains (1–2 Gm.) in hot W., 3 t. p. d.; or, better, in the morning.

**Urner's Liquid Chloroacetic Acid.**—see **Acid Dichloroacetic****Urobilin Hoppe-Seyler-Merck** (40000)

(Hydrobilirubin).—Biliary pigment; found in dark-colored urine in fever.— $\text{C}_{32}\text{H}_{40}\text{N}_4\text{O}_7$ .—Brownish-red, resinous masses.—*Sol.* A., E., C., & alkalies.—*Uses*: Reagent for zinc.

**Urocital**

(Theobromine-Sodium Citrate).—Wh. powd.; 45% theobromine.—*Sol.*, eas. warm W.—*Uses*: Anginal & cardiac asthmatic affect., dropsy, pleurisy, &c.—*Dose* 8–15 grains (0.5–1 Gm.) sev. t. p. d.—*Caut.* Avoid simultaneous taking of acids, fruit juices, &c.

**Uromelanin Thudichum-Merck** (50000)

Color. prin. fr. urine.— $\text{C}_{36}\text{H}_{43}\text{N}_7\text{O}_{11}$ .—Amorph., black powd.—*Sol.* A., & caustic alkalies.

**Uropherin B** (30)

(Theobromine & Lithium Benzoate Merck).—47% theobromine.— $\text{LiC}_6\text{H}_5\text{N}_4\text{O}_2 \cdot \text{H}_2\text{O} ? + \text{LiC}_6\text{H}_5\text{CO}_2$ .—Fine, wh. powd.; decomp. on expos.—*Sol.* 5 W.—*Diur.*; Nerve Stim.—*Uses*: Dropsy, nephritis, & dis. of heart & gen-urin. org.— $1\frac{1}{2}$  times as powerful as theobromine. Works well together with digitalin.—Patients who cannot tolerate salicylic acid generally do well w. this salt.—*Dose* 5–15 grains (0.3–1 Gm.).—*Max. D.* 60 grains (4 Gm.) p. day.—*Caut.* Keep fr. air.

**Uropherin S** (30)

(Theobromine & Lithium Salicylate Merck).— $\text{LiC}_6\text{H}_5\text{N}_4\text{O}_2 \cdot \text{H}_2\text{O} (?) + \text{LiC}_7\text{H}_5\text{O}_6$ .—Wh. powd.—*Sol.* 5 W.—*Uses*, *Doses*, &c.: As of Uropherin B.—*Caut.* Keep solut. fr. contact w. air!

**Urosine** (20)

(Lithium Quinate).—Mixt. quinic acid & lithium citrate, marketed in form of tablets, ea. cont. 8 grains (0.5 Gm.) quinic acid, &  $1\frac{1}{2}$  grains (0.1 Gm.) lithium citrate with some sugar.—Antiarthritic; *Diur.*; Uric-acid Solvent.—*Uses*: Gout, gravel, &c.—*Dose* 6–10 tablets p. d.

**Urostigma Cystopodium.**—see **Mururé****Urotropin.**—see **Heximethylenamine****Uroxin.**—see **Alloxantin**

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



**Urson Merck** (150)  
(Cyst. prin. Lembe. fr. arbutin in lvs. *Arctostaphylos Uva-ursi*, L.  $C_8H_{10}O_4 + 2H_2O$ .—Wh. cryst. powd.—*Sol.* A, L. *m.* *W.*—*Melt* 266–268° C.

## Urtica

(Stinging Nettle; Common European Nettle; Greater Nettle).—*Herb* of *Urtica dioica*, L. *Urticaceae*.—*Habit.* Europe Asia natur in U. S.—*Etymol.* Lat. "urere" to burn, referring to the burning sensation caused on contact with the glandular hairs. "Dioica" refers to the dioecious flower.—*Constit.* Tannin, formic acid, glucoside. *Hemostat.*, Irritant, Diur. *Uses*. Domestic remedy in gout, diar., & uterine hemorrhages.—*Doses*: 15–30 grains (1–2 Gm.).—*Fld. extr.*, 15–30 ml (1–2 Ce.).

## Urystamine

(Hexamethylenamine - Lithium - Benzoate).—*Sol.*, eas. W.—*Uses*. Gout, rheumat., vesical & urethral catarrh, & to promote elim. of uric acid.—*Dose* 15 grains (1 Gm.).

## Ustilago

(Corn Smut; Corn Ergot; Corn Brand).—A parasitic fungus, *Ustilago segetum* Bull. (*Ustilago Maydis*, Leveillé), developed upon the fruit of *Zea Mays*, L. *Ustilaginaceae*.—*Habit.*: North America; Europe.—*Etymol.*: Lat. "urere," to burn or scorch, i.e., the parasite causes other plants to appear scorched or burned.—*Constit.*: Ustilagine; fixed oil; malonic (sclerotic) acid; secalonic.—*Uses*: Ecbolic like ergot.—Contractile power intermittent, not continuous as with ergot.—*Doses*: 15–60 grains (1–4 Gm.).—*Fld. extr.*, 30–120 grains (2–8 Ce.).

## Uva Ursi.—U. S. P.

(Bearberry).—Dried lvs. of *Arctostaphylos Uva-ursi* (L.), Sprengel. *Ericaceae*.—*Habit.*: Northern Europe; North America, south to N. J., Colorado, & Calif.; Asia.—*Etymol.*: "Uva ursi" fr. Lat. "uva," grape, & "ursus," bear. "Arctostaphylos," fr. Grk. "arktos," bear, & "staphylos," bunch of grapes, i.e., the fruit is rough, & the berries grow in bunches like grapes.—*Constit.*: Volat. oil; arbutin,  $C_{12}H_{16}O_7$ ; ericolin,  $C_{34}H_{56}O_{22}$ ; urson,  $C_{16}H_{16}O$ ; ericicol; resin; tannin; malic acid; fat; wax; gum; coloring matter.—Tonic; Astring.; Diur.; Nephritic; in large doses Emet.; Purgat.; Emmen.—*Uses*: Chiefly in urinary diseases, as cystitis, gravel, incontin. urine, gleet, gonorr., leucorr., menor.; nephrit., &c.—*Doses*: 15–60 grains (1–4 Gm.).—Hydro-alcoh. extr., 5–15 grains (0.3–1 Gm.).—*Fld. extr.*, 30–60 ml (2–4 Ce.).

*Uvedalia*.—see *Polymnia*

## V

## Vaccinium

(Whortleberry; Bilberry; European Huckleberry).—Dried fruit (berries) & herb of *Vaccinium Myrtillus*, L. *Ericaceae*.—*Habit.*: Europe

—*Etymol.* "Vaccinium" is the Lat. name for the huckleberry. Lat. "myrtus," i.e., the berries resemble those of the myrtle.—*Constit.* Fruit. Ericolin, tannin, coloring matter.—*Lvs.* Quinic acid, arbutin.—*Uses*. Fruit. As decoct. in diar. *Extern.*, in eczema, scalds, & burns.—*Techn.*, as a dye.—*Lvs.* Used as specific in diabetes (?), & as surrogate for uva-ursi. Also used in chron. cystitis, diar., dysent., & dropsy.—*Doses*. Fruit. Extr. as enema, 1 dr [15 Gm.] to 8 fl oz [250 Ce.] water, & supposit. extr. 15 grains (1 Gm.), potass. carb. 1½ grains (0.1 Gm.), cacao butter 30 grains (2 Gm.), in inflam. affect. of lower intestines.—*Lvs.*, 30–75 grains (2–5 Gm.).

*Valeraldehyde*.—see *Aldehyde Valeric*, *Iso-*

## Valeral-Sodium Bisulphite Merck (30

(Valerylaldehyde-Sodium Bisulphite).— $2(C_5H_9O.NaHSO_3) + H_2O$ .—Colorl. cryst.—*Sol.* W.

## Valeramide Merck (100

(Isovaleramide).— $(CH_3)_2CH_2CH_2CO.NH_2$ .—Wh. cryst.—*Sol.* A, W.—*Melt* 126–128° C.—*Boil.* 230–232° C.

## Valerian.—U. S. P

Dried rhizome & roots of *Valeriana officinalis*, L. *Valerianaceae*.—*Habit.*: Europe; northern Asia; natur. in eastern U. S.—*Etymol.*: Lat. "valere," to be strong, healthy, referring to the medicinal virtues of the plant. Or, fr. "Valerianus" or "Valerius," who is said to have first used it in medicine.—*Constit.*: Volat. oil; valerian; chatinine; valeric, formic, malic, & acetic acids; tannin; resin; mucilage.—Anod.; Antispasm.; Stim.; Nervine.—*Uses*: Hysteria, epilepsy, hypochondr., headache, fevers, &c.—*Doses*: 15–60 grains (1–4 Gm.).—Alcoh. extr., 5–15 grains (0.3–1 Gm.).—*Fld. extr.*, 30–60 ml (2–4 Ce.).—*Tinct.*, 60–120 ml (4–8 Ce.).

*Valeric-acid Diethylamide*.—see *Valyl*

## Valerydin

(Valerylparaminophenetol; Sedatin; Isovalerylparaphenetidin; Valerylphenetidin).—Fr. paramidophenetol by valeric acid.— $C_2H_5O.C_6H_4.NH.C_3H_7O$ .—Colorl., lustr., odorl., tastel. need.—*Sol.* A, C, acetone; diffie. E.; insol. W.—Sed.; Nervine.—*Uses*: Instead of valerian preparations as sedative in nervous affections.—*Dose* 8–15 grains (0.5–1 Gm.) several t. p. d.

## Valeryl Chloride Merck (35

(Isovaleryl Chloride).— $C_5H_9OCl$ , or,  $(CH_3)_2CH.CH_2COCl$ .—Liq.; decomp. w. W.—Sp. Gr. 0.989 at 20° C.—*Boil.* 114° C.

*Valerylaldehyde-Sodium Bisulphite*.—see *Valeral-Sodium Bisulphite*

*Valerylene Hydriodide*.—see *Iodamylene*

*Valerylparaminophenetol.* } —see *Valerydin*  
*Valerylphenetidin.* }

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Validol** (28)  
(Menthol Valerate).—Comp. of menthol (30%) & valeric acid (70%).—Colorl. liq.; mild, pleasant odor; cooling, faintly bitter taste; dissolves considerable quantities of menthol. — Nerve Sedative; Carmin.; Stomachic. — *Uses*: Hysteria, neurasthenia, flatulence, migraine, vomiting of pregnancy, irritated bladder, anorexia, epilepsy, gastralgia, seasickness, &c. — *Dose* 10–20 drops on sugar, several t. p. d.

**Validol Camphorated** (28)  
Validol w. 10% camphor. — Colorl., thick liq.; cool, faintly bitter taste. — *Sol.*, eas. A., oils; insol. W. — *Local Analg.* — *Uses*: Toothache, & in all cases where prompt stimulant restorative is indicated. — *Dose* 10–15  $\text{M}$  (0.6–1 Cc.) 3 t. p. d., on sugar or in wine.

*Vallet's Mass.* — see **Mass Ferrous Carbonate**

**Valser's Reagent.** — For alkaloids

Satur. solut. mercuric iodide in 10% solut. potass. iodide. — Affords white ppt's w. alkaloids.

**Valyl** (18)  
(Valeric-acid Diethylamide). —  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CO.N}(\text{C}_2\text{H}_5)_2$ . — Colorl. liq.; peppermint-like odor. — *Sol.*, eas. A., E.; abt. 25 W. — *Sed.*; Antispasmodic. — *Uses*: Hysteria, neural., hemiparesis, neurasthenia, &c. — *Dose* 1–3 caps. (each containing 2  $\text{M}$  [0.12 Gm.] valyl) 3 t. p. d.

*Valzin.* — see **Sucrol**

**Vanadic Anhydride.** — see (Acid) **Vanadic Anhydride**

**Vanadium Merck** (2000)  
*Etymol.*: Named by Sefström in 1830 in honor of the Northern Goddess "Vanadis" (the German "Freya"). — Metal. — V. — Light-gray, lustr. powd. — Sp. Gr. 5.5 at 15° C. — The metal is of no importance technically.

**Vanadium Chloride Merck** (50)  
(Hypovanadic Hydrochloride; Divanadyl Tetrachloride). —  $2\text{VO}_2 \cdot 4\text{HCl} + 3\text{H}_2\text{O}$ . — Dark-green, syrupy masses. — *Sol.* W., A. — *Uses*: Techn., as mordant in printing fabrics.

**Vanadium Pentasulphide.** — see **Vanadium Sulphide**

**Vanadium Pentoxide.** — see (Acid) **Vanadic Anhydride**

**Vanadium Sesquioxide.** — see **Vanadium Trioxide**

**Vanadium Sulphate Merck** (50)  
 $\text{V}_2\text{O}_5 \cdot (\text{SO}_4)_2 + 4\text{H}_2\text{O}$ , or,  $\text{VO}_2 \cdot \text{SO}_3 + 2\text{H}_2\text{O}$ . — Blue, cryst. powd. — *Sol.* W.

**Vanadium Sulphide Merck** (200)  
(Vanadium Pentasulphide). —  $\text{V}_2\text{S}_5$ . — Green powd. — Insol. W.

**Vanadium Trioxide Merck** (200)  
(Vanadium Sesquioxide). —  $\text{V}_2\text{O}_5$ . — Black powd.; sl. luster; in air gradually converted into indigo-

blue cryst. of vanadous acid ( $\text{V}_2\text{O}_4$ ). — *Uses*: mordant in dyeing, & in manuf. steel, in making easily malleable & ductile alloys.

**Vanadyl Salts.** — see under **Vanadium**

**Vanilla.** — U. S. P.

Cured, full-grown, but immature fruit of *Vanilla planifolia*, Andrews. Orchideae. — *Habit.*: Mexico; West Indies; Réunion; Ile de France; Seychelles. — *Etymol.*: Fr. Spanish "vainilla," diminutive of "vaina," sheath, pod, i.e., a little pod resembling a sheath. "Planifolia" fr. Lat. "planus," flat, & "folium," leaf, i.e., the lvs. are flat, without prominent veins. — *Constit.*: Vanillin; balsam; vanillic acid. — *Emmen.*; Aphrodisiac; Antihysteria; Antirheumat.; Aromat. — *Uses*: Techn., in manuf. of chocolate & confectionery; perfumery; flavor for syrups, tinctures, &c. — *Dose* 8–20 grains (0.5–1.2 Gm.).

**Vanillic Aldehyde.** — see **Vanillin**

**Vanillin Merck.** — Refined (13)  
(Methylprotocatechuic Aldehyde; Vanillic Aldehyde). — Principle fr. pods of *Vanilla planifolia*, Andrews; also potato parings & Siam benzoin; artif. fr. eugenol & coniferin, &c. —  $\text{C}_8\text{H}_8\text{O}_3$ , or,  $\text{C}_6\text{H}_3(\text{OH})\text{OCH}_3\text{CHO}$  [1:3:1]. — Colorl. prisms; pleas., arom. odor; vanilla taste. — *Sol.* A., E., G., C.,  $\text{CS}_2$ ; sl. W., at 15° C.; (100 W. at 25° C.; 15 W. at 80° C., U. S. P.). — *Melt.* 80–81° C. — *Boil.* 285° C. — *Stim.*; Tonic; Aphrodisiac. — *Uses*: Dyspep. — Chiefly for perfumery & confectionery, e.g., in artif. cognac, chocolate, &c. 1 part vanillin equals 400 parts vanilla pods. In the manuf. liqueurs, 2.5–3 parts vanillin replace 500 parts tinct. vanilla. — *Dose*  $1/6$ – $1/3$  grain (0.01–0.02 Gm.).

**Vanillinethylcarbonate-paraphenylidin.** — see **Eupyrin**

**Vasaca.** — see **Adhatoda**

**Vasclin.** — see **Petrolatum**

**Vaselon**

Mixt. of margaron & stearon diss. in mineral oil. — Wh., neutral, fatty mass; odorl.; tastel.; resembles petrolatum. — *Uses*: Ointment base.

**Vasicine**

Alkaloid fr. the Indian plant *Adhatoda Vasica*, Nees. — *Uses*: Bronch. affect. & as an insecticide.

**Vasicine Tartrate Merck** (2500)

Tartrate of alkaloid fr. lvs. *Adhatoda Vasica*, Nees, an East-Indian Acanthaceae. — Wh., cryst. powd. — *Sol.*, sl. W., A. — Has toxic action on lower animals, but is without such effect on higher animals, hence may be used as an insecticide. To what extent the alkaloid & salt exhibit the expector. & antispasmodic properties of the lvs. of the plant, is still to be investigated.

**Vasogen**

(Oxygenated Vaseline). — Readily emulsifies w. W. & renders many active remedies like creolin-

**Comparative Values** (see *Preface*, page v): 1=Chenp Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Acornitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



Flowers, the whole plant, slightly prostrated, & readily decedible. Yellowish flowers, yellowish slight bluish tinge in fruit. — *Uses*: Usually as vegetable for medicinal purposes.

**Vegetable Albumin**. — see **Albumin, from Plants**

**Vegetable Mercury**. — see **Manaca**

**Vegetable Wax**. — see **Wax, Japan**

**Verdure Turpentine**. — see **Turpentine, Venice**

**Veratrine Merck.** — *U. S. P.* (44

Mixt. of alkaloids, chiefly amorph. veratrine & cryst. cevadine ( $C_{22}H_{49}NO_9$ ), w. small quant. crystalline alkali fr. seeds *Asagrua officinalis*, Lindley. — Discovered by G. Merck in 1855. —  $C_{22}H_{49}NO_9$ . — Colorl. cryst. — *Sol.* 10–12 A., & U. — *Melt.* 205° C. — On heating with KOH decomposes into cevine ( $C_{22}H_{49}NO_8$ ) & tiglic acid ( $C_5H_9O_2$ ). — Better adapted for internal use than the preceding (which is better for external use). — *Uses*: Gout, rheum., erysipelas, neural., croupous pneum., & heart diseases. — *Dose*  $1/100$ – $1/12$  grain (0.001–0.005 Gm.) sev. t. p. d. in pill or alcoh. solut. — *Max. D.*  $1/12$  grain (0.005 Gm.) single;  $1/4$  grain (0.015 Gm.) p. d.

**do. Merck.** — Pure, cryst. (175

(Cevadine). — Cryst. alkaloid fr. seeds *Asagrua officinalis*, Lindley. — Discovered by G. Merck in 1855. —  $C_{22}H_{49}NO_9$ . — Colorl. cryst. — *Sol.* 10–12 A., & U. — *Melt.* 205° C. — On heating with KOH decomposes into cevine ( $C_{22}H_{49}NO_8$ ) & tiglic acid ( $C_5H_9O_2$ ). — Better adapted for internal use than the preceding (which is better for external use). — *Uses*: Gout, rheum., erysipelas, neural., croupous pneum., & heart diseases. — *Dose*  $1/100$ – $1/12$  grain (0.001–0.005 Gm.) sev. t. p. d. in pill or alcoh. solut. — *Max. D.*  $1/12$  grain (0.005 Gm.) single;  $1/4$  grain (0.015 Gm.) p. d.

**Veratrine Acetate Merck** (100

$C_{22}H_{49}NO_9 \cdot C_2H_3O_2$ . — Wh. powd. — *Sol.* W., A. — *Uses, Doses, Antid., &c.*: As of the official alkaloid. — *Caut.* Poison!

**Veratrine Hydrochloride Merck** (100

$C_{22}H_{49}NO_9 \cdot HCl$ . — Wh., amorph. powd. — *Sol.* W., A. — *Uses, Doses, Antid., &c.*: As of the official alkaloid.

**Veratrine Nitrate Merck** (100

$C_{22}H_{49}NO_9 \cdot NO_3$ . — Wh. powd. — *Sol.* W., A. — *Uses, Doses, Antid., &c.*: As of the alkaloid.

**Veratrine Oleate**

2% of veratrine in oleic acid. — *Sol.* E., & oleic acid. — Rubefacient; Anod. — *Uses*: *Extern.*,

arthritis, joint, rheum., & sprains, or internally, as in pneumonia.

**Veratrine Sulphate Merck** (50

$C_{22}H_{49}NO_9 \cdot H_2SO_4$ . — Wh. to yellowish powd. — *Sol.* W., A. — *Uses, Dose, Antid., &c.*: As of the official alkaloid.

**Veratrine Valerate Merck** (100

Wh. powd. — *Sol.* W., A. — *Uses, Dose, Antid., &c.*: As of the official alkaloid.

**Veratrole Merck.** — Cryst. (35

(Pyroacetic dimethyl Ester). — From veratrine acid, by baryta w. heat —  $C_{12}H_{16}O_2$ , or,  $C_{12}H_{14}$  (COH) [12]. — Perfectly pure, colorl. cryst. — *Sol.* A, 1, fatty oils. — *Melt.* 23° C. — *Boil.* 205° C. — *Antid.* — Only one-third as toxic as guaiaccol, but far more caustic. — *Uses*: *Extern.*, as paint in intercostal neural. (eq. parts veratrole & tinct. iodine), & comb. w. potass. iodide (5.45) in orchitis. — *Intern.*, in tuberculosis. — *Dose* 2 grains (0.12 Gm.), 3 t. p. d.

**Veratrone**

Alcoh.-free, sterile prep. of Veratrum viride, rendered stable by add. of 0.75% chlorotone. — Clear liq.; pleas. odor; sl'tly bitter taste. — *Uses*: As of fl. extr. Veratrum viride. — 1 part = active constit. 1 part drug.

**Veratroylconine**. — see **Aconitine from Aconitum Ferox**

**Veratrum.** — *U. S. P.*

(American Hellebore; Green Hellebore; American Veratrum; Indian Poke). — Dried rhizome & roots of *Veratrum viride*, Aiton (or of *V. album*, L.), Liliaceae. — *Habit.*: North America. — *Etymol.*: Lat. "vere," truly, & "ator," black, dark, i.e., the roots of some of the spec. are dark. Lat. "viridis," green, i.e., the flowers are greenish. — *Constit.*: Jervine,  $C_{26}H_{53}NO_9$ ; pseudojervine,  $C_{26}H_{53}NO_7$ ; veratrine (cevadine),  $C_{22}H_{49}NO_9$ ; rubijervine,  $C_{26}H_{53}NO_2$ ; veratralbine,  $C_{28}H_{43}NO_6$ ; veratroidine,  $C_{22}H_{53}NO_6$ ; resin; starch. — *Sed.*: Emet.; Diaphor.; Irritant; Sternutat.; Erhine; Diuret. — Retards heart's action without weaken.; checks puerper. convuls.; aborts eroup, limits pneum. in the lungs. — *Uses*: Laryng., mening., vertigo, diar., dropsy, gout, &c. — *Techn.*, as insecticide. — *Doses*: 1–4 grains (0.06–0.25 Gm.). — Alcoh. extr.,  $1/4$ –1 grain (0.015–0.06 Gm.). — Fld. extr., 1–4 ℥ (0.06–0.25 Gm.); *Max. D.* 8 ℥ (0.5 Gm.) single, 30 ℥ (2 Gm.) daily. — *Tinct.*, 1–5 ℥ (0.06–0.3 Gm.). — *Antid.*, emetics, stomach siphon, tannin, stimulants (whisky, ether, alcohol, ammonia), atropine, strychnine, digitalis, heat, mustard applications, friction, &c.

**Veratrum Album**

(White Hellebore; White Veratrum; Lingwort; Sneezewort). — Rhizome of Veratrum album, L. Liliaceae. Melanthaceae. — *Habit.*: Europe; northern Asia. — *Etymol.*: See preceding. "Veratrum album" is the Lat. name for the "Helleborus leu-

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



kos" of the Greeks.—Powd. of the plant causes sneezing, an omen verifying the truth of any assertion.—*Constit.*: Jervine,  $C_{26}H_{37}NO_3$ ; veratrine (cevadine),  $C_{32}H_{49}NO_4$ ; pseudojervine,  $C_{26}H_{35}NO_7$ ; rubijervine,  $C_{26}H_{35}NO_2$ ; veratralbine,  $C_{28}H_{43}NO_5$ ; protoveratrine,  $C_{32}H_{51}NO_{11}$ ; protoveratridine,  $C_{26}H_{45}NO_8$ ; jervic acid.—*Antipyr.*; *Emet.*; *Diaph.*; *Erhrine*; *Sternut.*—*Uses*: *Extern.*, as insecticide.—*Techn.*, for killing insects on plants, & also rats, mice, &c.—*Dose* 1-5 grains (0.06-0.3 Gm.), beginning with a small dose & cautiously increasing.—*Antid.* As of preceding.

## Verbascum

(Mullein; Mullen).—Flowers & herb of *Verbascum Thapsus* (L.), *V. Thapsiforme*, Schrad., & *V. phlomisoides*, L. *Scrophulariaceae*.—*Habit.*: Europe & Central Asia.—*Etymol.*: Fr. Lat. "barbaseus," through "barba," beard, *i.e.*, the plant is densely tomentose. "Thapsos" is the Grk. name for the island, Thapsus, where the plant grew.—*Constit.*: *Flowers*: Fixed & volat. oils; coloring matter; sugar; wax; tannin; two resins.—*Lvs.*: Volat. oil; wax; tannin; resin.—*Diaph.*; *Demule.*; *Diur.*; *Anod.*; *Antispasm.*; *Antiper.*—*Uses*: *Herb*: is emoll. in bronchial affections, & resol. in form of fomentations.—*Dose*: *Fld. extr.*, 30-60 M (2-4 Cc.).—The *fld. extr.* of the root is similarly used & in like dose.

## Verbena

(Vervain; Wild Hyssop).—Herb of *Verbena officinalis*, L. *Verbenaceae*.—*Habit.*: Europe; Asia; natur. in U. S.—*Etymol.*: Lat. "verbum," word, *i.e.*, oaths were taken on this plant. Or, fr. Celtic "ferfaen," removes gravel.—*Constit.*: Tannin; bitter principle.—*Demule.*; *Bitter Tonic*.—*Uses*: Popular panacea, partie. for gravel, but now obsolete.—*Dose* 10-30 grains (0.6-2 Gm.).

*Verdigris, Blue.*—see **Copper Acetate, Basic, Blue**

*Verdigris, Crystallized.*—see **Copper Acetate, Normal**

*Verdigris, Green.*—see **Copper Acetate, Basic, Refined**

*Verditer Blue.*—see **Copper Carbonate, Blue**

*Verditer Green.*—see **Copper Carbonate, Green**

*Vermilion.*—see **Mercury Sulphide, Red**

## Veronal (32)

(Diethylmalonylurea; CONEH; Diethylbarbituric Acid).— $(C_8H_7)_2C:(CONH)_2CO$ .—Wh. cryst. powd.; faintly bitter taste.—*Sol.*, abt. 150 cold & 12 boil. W.—*Melt.* 191° C.—Safe, reliable Hypnotic.—*Uses*: Simple agrypnia, & in insomnia accompanying hysteria, neurasthenia, cure of morphinism, & mental disturbances.—*Dose* 5-15 grains (0.3-1 Gm.), best taken dissolved in hot tea or water.—Also marketed in tablets of 5 grains (0.3 Gm.) each.

*Note.*—Practitioners generally concede Veronal

to be the safest as well as most efficient hypnotic for general use.

## Veronica

(Speedwell).—Herb of *Veronica officinalis*, L. *Scrophulariaceae*.—*Habit.*: Europe; Asia; natur. in U. S.—*Etymol.*: Lat. "verus," true, & "unicus," only, single, referring to the far-fetched ideas formerly held regarding the medicinal value of the plant.—*Constit.*: Volat. oil; bitter subst'ce; tannin.—*Expector.*; *Alter.*; *Tonic*; *Diur.*—*Uses*: Tuberculosis, rheum., & gout, under the name "European Tea."

*Veronica Beccabunga.*—see **Beccabunga**

*Veronica Virginica.*—see **Leptandra**

## Vernonin

Glucoside, fr. root *Vernonia nigritiana*, Oliv. & Hier.— $C_{10}H_{24}O_7$ .—Wh., deliq., amorph. powd.—*Sol.* A.; sl. E. & C.—*Heart Tonic*.—*Uses*: Inst. of digitalis; said to possess abt.  $\frac{1}{24}$  the power of digitalin.—*Caut.* Cardiac poison!—*Tests*: Sulphuric acid produces a brown color, turning to purple.

*Verrain.*—see **Verbena**

## Vesipyrene

(Acetyl-salol).— $CO_2CH_3O.C_6H_4.COOC_2H_5$ .—Col-  
orl., odorl., alm. tastel. cryst.—*Sol.* A.; insol. W.—*Melt.* 97° C.—*Uses*: Artic. rheum., rheumatoid pains, neuralg., influenza, &c.—*Doses*: Adults, 30-75 grains (2-5 Gm.) p. d.; children, 8 grains (0.5 Gm.) twice p. d.

*Vesurine.*—see **Bismarck Brown**

## Vesuvine B Merck (5)

(Bismarck Brown B; Metatoluylenediamine-disazobimetatoluylenediamine Hydrochloride).—Dark-brown powd.—*Sol.* A. & W.—*Uses*: As of Bismarck Brown.

## Viburnum Opulus.—U. S. P.

(Cramp Bark; High Cranberry; Cranberry Tree; Water Elder; Squaw Bush; Snowball Bush).—Dried bark of *Viburnum Opulus*, L. *Caprifoliaceae*.—*Habit.*: Europe; Asia; northern North America, south to Pennsylvania.—*Etymol.*: "Viburnum," fr. Lat. "vicio," to plait, to weave, because of the pliability of its branches. "Opulus," the old name for the maple, & the lvs. of which resemble those of *V. opulus*.—Flatfish or curved bands, or quills; extern. ash-gray; beneath the cork a pale-brownish or somewhat reddish-brown color, inner surface dingy-white or brownish; inodor.; somewhat astring. & bitter taste.—*Constit.*: Viburnin; valer. acid; brown, bitter resin; tannin; sugar; oxalates, citrates, & malates.—*Nervine*; *Antispasm.*; *Diur.*; *Tonic*; *Astring.*—*Uses*: Specially useful in hysteria & pregnancy.—*Dose* 30-120 grains (2-8 Gm.), in powd. or fld. extr.

## Viburnum Prunifolium.—U. S. P.

(Black Haw; Sweet Viburnum; Sheep Berry; Stag

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaia-col; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



1. *Fls.*—S. *corolla* 4-5 cm. long. Dried back of root of *Viburnum* (pinnatifid L. Caprifoliaceae)—*Habit* 1.8 m. *Leaves*—“Viburnum,” as people call it, “Viburnum” plants & “Viburnum” leaves, the leaves are like those of the plum tree.—This plant is a quill-like plant, purplish brown (fr. of two grey & brown) inner surface whitish, smooth, first sharp prickles, now with a string & later a *cord* (Viburnum) white and red (brown) bitter-tannin oxalates malates & citrates. *Uses*—Uterine tonic & Sed., particularly good in the uterine abortion, ovar. irrit., dysmenorr., menorr., &—*Dose*, 15-60 grains (1-4 Gm.) fr.—Alcoh. extr. 5-15 grains (0.3-1 Gm.)—Flk. extr. 30-60 gr. (2-4 Gm.)

Victoria Blue B Merck

Triethyltetraethoxytris(methyl- $\alpha$ -phenylpentyldi-phenyl)arborol Hydrochloride,  $C_{41}H_{51}N \cdot HCl$ —Crystalline grains of a shining bronze color—*Sol*, hot  $W$ ; *sl* cold  $W$ ; *ins* in  $A$ , with pure blue color—*Uses*: Dyeing wool, cotton, & silk.

Victoria Blue 4 R Merck

(Phenylpentametyltriamido -  $\alpha$ -naphthyl- $\beta$ -phenylcarbinol Hydrochloride) — Bronze-colored powder. Sol., hot W. w. blue-violet color. — *Uses*: Dyeing wool, cotton, & silk.

*Victoria Green*.—see **Malachite Green**

### Victoria Orange

(Aniline Orange; English Yellow; Saffron Substitute).—Potass. or amm. salts dinitro-ortho-cresol & dinitroparacresol.  $C_7H_5N_2O_5K$ , or,  $C_6H_3(OK)(CH_3)(NO_2)_2$ . Reddish-yellow powd. —*Sol.* W. —*Uses*. Dyeing wool & silk orange. Improperly for coloring butter, liqueurs, &c.

*Vienna Caustic or Paste*.—see Potassium Hydroxide with Lime

## Viferral

Fr. chloral & pyridine. — Wh. powd. — *Sol.*, slowly in cold, rapid in hot, W.; insol. in W. neutral. w. HCl. — *Melt.* 153–155° C. (sinters at 150° C.). — Hypnotic. — *Dose* 12–15 grains (0.75–1 Gm.) in powd. or tabl.

## Vinca

(Small Periwinkle; Periwinkle).—Herb of *Vinea minor*, L. Apocynaceae.—*Habit.*: Europe; natur. in U. S.—*Etymol.*: Lat. "vincere," to conquer, i.e., the plant resists the cold of winter. "Minor," comparative of "parvus," small.—*Const.*: Vincin; tannin.—*Tonic*; Alter.; Diur.; Bitter Astring.—*Uses*: Popular remedy formerly, but now obsolete.

### Vincetoxicum

(Swallow-wort; White Swallow-wort).—Root of *Vincetoxicum officinale*, Moench. (*Cynanchum Vincetoxicum*, Pers.). Asclepiadaceae. *Habit.*: Mountainous Europe.—*Etymol.*: Lat. "vincere," to conquer, & Grk. "toxikon," poison, referring to its supposed action.—*Constit.*: Asclepiadin:

—Used chiefly in veterinary practice.

Vinegar, Pyroligneous or Wood. — see Acid  
Pyroligneous

1 mol Trichloride.—see Ethylene Chloride, Monochloro-

Vinylbenzene (or, -zol).—see Styrene

*N*-methylmethanamonium Hydroxide.—see **Neurine**

### Vioform

**Iodoform** (28)  
(Iodochloroxyquinoline). —  $C_9H_5NOHCl$ . —  
Greenish yellow, alm. odorl., bulky insol. powd.  
—Antisept.; Cicatrizing; Hemostat.—*Uses*: As  
of iodoform.

### Viola Odorata

(English Violet; Marsh or Sweet Violet).—Flowers & herb of *Viola odorata*, L. Violaceae. —*Habit*: Europe & northern Asia; cultiv. in U. S.—*Etymol.*: “*Viola*,” corrupted fr. Grk. “*ion*,” violet.—*Constit*: *Flowers*: Volat. oil; blue coloring matter.—*Uses*: *Flowers*: Lax.; Corrigent (as syrup).—*Techn.*, as dye.—*Lrs.* Diaph.; popular remedy for cancer.—*Dose*: *Flowers*: 3-4 dr. (12-16 Gm.) as lax.

## Viola Tricolor

(Heartsease; Pansy).—Flowers & herb of *Viola tricolor*, L. *Violaceae*.—*Habit*.: Europe; northern Asia; cultv. in U. S.—*Etymol.*: “*Viola*,” see preceding; “*tricolor*,” fr. Lat. “*tres*,” and “*color*,” i. e., the corolla has three colors, blue, yellow, & purple.—*Constit.*: Violin; salicylic acid; violaquercitrin ( $C_{42}H_{12}O_{24}$ ).—*Uses*: *Flowers*: Alter. in skin dis.—*Lvs.*: Lax.; Demulc.; Pectoral; Expector.—*Extern.*, as fomentation.—*Dose*: Fld. extr., 30–60 m (2–4 Cc.).

*Violet*.—see *Viola Odorata*

**Violette-Fehling's Solution.**—For glucose

Solut. copper sulphate, Rochelle salt, & sod. hydroxide in W.—Used like Fehling's solut.

*Viper's Grass*.—see *Scorzonera*

*Virginia Creeper*.—see **Ampelopsis**

*Virginia Snakeroot*.—see **Serpentaria**

## Viscum

(Mistletoe).—Lvs. & branches of *Viscum* (Phoradendron) flavescens, Pursh. Loranthaceae, a yellowish-green, succulent parasite found growing on oaks, apple-trees, elms, &c.—*Habit.*: America.—*Etymol.*: Celtic “gui” or “gwid,” shrub; Grk. “iskos,” “isehein,” “echein,” to adhere; Lat. “viscidus,” “viscosus” adhesive, referring to the adhesive contents of the berries.—*Constit.*: Viscin; fat; tannin; gum; bassorin; extractive.—*Nar.*: Antispasmodic; Diaph.; Tonic; Oxytocic; Styptic in uterine or intern. hemorrhages.—*Doses*: 30–60 grains (2–4 Gm.) increased to 3 dr. (12–16 Gm.).—*Fld. extr.*, 30–60 ℥ (2–4 Cc.).

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

Specify **MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**.



**Viscum Quercinum**

A mistletoe particularly found on the oak.—*Habit.*: Eastern & southern Europe.—*Etymol.*: See Viscum.—*Constit.*: Viscin; fat; tannin; gum.—*Uses*: Popular remedy, particularly in epilepsy. The inspissated ethereal extract (viscin) is employed externally as a protective, & as vehicle for other dermatotherapeutic agents.

**Vitellin Merck.**—From Eggs (150 (Ovovitellin).—Nuclein, containing some lecithin, fr. yolk of eggs (after Hoppe-Seyler).—Wh., gran. powd.—*Sol.*, dil. acids, alk., 10% solut. sod. chloride; insol. W.

**do. Merck.**—From Plants (400 Globulin separated fr. beans, peas, &c., by a solut. sod. chloride.—Wh. powd.

**Vitreous Antimony.**—see **Antimony Sulphide, Vitreous**

**Vitriol, Green.**—see **Iron Sulphate, Ferrous**

**Volhard's Solution.**—see **Potassium Sulphocyanate, Solution**

**W**

**Wad.**—see **Graphite**

**Wahoo.**—see **Euonymus**

**Wall Pellitory.**—see **Parietaria**

**Wall Rue.**—see **Ruta-Muraria**

**Wallwort.**—see **Parietaria**

**Walnut, Leaves, Shells, &c.**—see **Juglans**

**Water Ammonia Merck.**—16° Bé. (1 (Aqua Ammoniac; Liquor Ammoniac; "Spirit of Hartshorn").— $\text{NH}_3$  + aq.—Sp. Gr. 0.960 at 15° C.; (0.958 at 25° C., U. S. P.).—10% by wt. of  $\text{NH}_3$ .—*Stim.*; *Antacid*; *Rubefac.*; *Antiprur.*—*Uses*: *Intern.*, in syncope, heartburn, sick headache, poisoning, &c.; *hypoderm.*, for snake bites, collapse in typhoid, &c.—*Extern.*, insect bites & in poison. by chlorine gas; chiefly as *rubefac.* in rheumat. & neuralg., in liniment (1–5:10 lanum, oil, or other fat).—*Techn.*, as detergent, removing spots & stains, bleaching, calico printing, manuf. lakes & dyes, extracting plant colors (cochineal, archil, &c.), manuf. snuff tobacco, saponif. fats & oils, &c.—*Dose* 10–30  $\text{m}$  (0.6–2 Ce.); *intraven.*, 30–60  $\text{m}$  (2–4 Ce.).

**do. Merck.**—20° Bé. (1 Sp. Gr. 0.935 at 15° C.—17%  $\text{NH}_3$ .

**do. Merck.**—Stronger (1 (Aqua, or Liquor, Ammoniac Fortior; Stronger or Concentrated Ammonia).—Aq. solut. ammonia gas.— $\text{NH}_3$  + aq.—Colorl. liq.; intense, pung. suffoc. odor; acid taste; str. alkaline react.—Sp. Gr. 0.900 at 15° C.; (0.897 at 25° C., U. S. P.).—28% by wt. of  $\text{NH}_3$ .—*Misc.*, all prop., W., A.—*Uses*: Pharm., chem., & techn.

—*Antid.*, acetic, tartaric, or dil. hydrochloric, acids after vomiting, & siphoning out stomach.—*Incomp.*: Great danger in mixing ammonia w. sulphuric acid or o. str. mineral acids, as they instly become boiling hot. Avoid iodine, chlorine water, alkaloids, acids, &c.—*Caut.* Keep cool, in strong, gl.-stp. bot., not completely filled.

**Water Ammonia Merck.**—Reagent.—Sp. Gr. 0.96 (2

Abt. 10%  $\text{NH}_3$ .—*Tests*: See under Water Ammonia, Reagent, Sp. Gr. 0.925.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.**—Reagent.—Sp. Gr. 0.925 (2

$\text{NH}_3$  gas +  $\text{H}_2\text{O}$ .—Clear, colorl. liq.—Sp. Gr. decreases as  $\text{NH}_3$  content increases.—Sp. Gr. abt. 0.925 & cont'g abt. 20%  $\text{NH}_3$ .—*Tests*: (*Res.*) evap. 10 Ce. sp. gr. 0.96 or 5 Ce. sp. gr. 0.925 on W.-bath—none wghble; a trace is, however, almost always left.—(*Cl*; *Pyridine*) 10 Ce. sp. gr. 0.96 or 5 Ce. sp. gr. 0.925 + 30 Ce.  $\text{H}_2\text{O}$  + 20 Ce.  $\text{HNO}_3$  (sp. gr. 1.153)—solut. should remain colorl.; add solut.  $\text{AgNO}_3$ —no turb.—( $\text{H}_3\text{PO}_4$ ) 20 Ce. sp. gr. 0.96 or 10 Ce. sp. gr. 0.925 + 40 Ce.  $\text{HNO}_3$  (sp. gr. 1.153) + 25 Ce. ammon. molybd. solut.; let stand at abt. 40° C.—no yellow ppt. within 2 hrs.—( $\text{H}_2\text{SO}_4$ ) 10 Ce. sp. gr. 0.96 or 5 Ce. sp. gr. 0.925 + solut.  $\text{BaCl}_2$ ; heat to boil.—no ppt. within 12 hrs.—( $\text{H}_2\text{S}$ ) 10 Ce. sp. gr. 0.96 or 5 Ce. sp. gr. 0.925 + sev. drops ammoniacal solut.  $\text{Pb}(\text{C}_2\text{H}_3\text{O}_2)_2$ —no yellow or brown color, or dark ppt.—(*Tar Bases* [*Aniline*; *Pyridine*; *Pyrrrol*, &c.]) 10 Ce. sp. gr. 0.96 or 5 Ce. sp. gr. 0.925 + 20 Ce.  $\text{HNO}_3$  (sp. gr. 1.153); evap. on W.-bath—res. must have a pure wh. color.—(*Ca*) 10 Ce. sp. gr. 0.96 or 5 Ce. sp. gr. 0.925 + 20 Ce.  $\text{H}_2\text{O}$  + solut.  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ —no turb.—(*Mg*) 20 Ce. sp. gr. 0.96 or 10 Ce. sp. gr. 0.925 + solut.  $(\text{NH}_4)_2\text{HPO}_4$ —no ppt. within 2 hrs.—( $\text{H}_2\text{CO}_3$ ) 20 Ce. sp. gr. 0.96 or 10 Ce. sp. gr. 0.925 + 20 Ce. lime-water; boil—not more than sl't turb.—(*Heavy Met.*) 5 Ce. sp. gr. 0.96 or 2.5 Ce. sp. gr. 0.925 + 20 Ce.  $\text{H}_2\text{O}$  + few drops  $(\text{NH}_4)\text{HS}$ —no react.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck.**—Reagent.—Stronger.—Sp. Gr. 0.90 (2

$\text{NH}_3$  gas +  $\text{H}_2\text{O}$ .—Clear, colorl. liq.—Sp. Gr. abt. 0.90.—Abt. 28%  $\text{NH}_3$ .—*Tests*: ( $\text{CO}_2$ ) 3.5 Ce. + 15 Ce. solut.  $\text{Ca}(\text{OH})_2$ —not more than slight opalesc.—(*Heavy Met.*) 1.75 Ce. + 20 Ce.  $\text{H}_2\text{O}$  + few drops solut.  $(\text{NH}_4)\text{HS}$ —no change.—(*Res.*) evap. 3.5 Ce. on W.-bath—none wghble (a trace is, however, almost always left).—(*Cl*; *Pyridine*) 3.5 Ce. + 30 Ce.  $\text{H}_2\text{O}$  + 20 Ce.  $\text{HNO}_3$  (sp. gr. 1.153)—no color change, & solut. not affected on

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 41=Veratrine; 53=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



add. solut.  $\text{AgNO}_3$ . — ( $\text{H}_2\text{SO}_4$  3.5 Ce.; acetic acid to acidity; dil.  $\text{BaCl}_2$ , heat to boil — no ppt. ( $\text{BaSO}_4$ ) within 12 hrs.

*Note.* For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Water Bitter Almond Merck.** Distilled (2 0.1% of hydrocyanic acid, together w. essential oil almonds, & A — Anod.; Sol.; Antispasmodic. — *Uses:* Chiefly as vehicle; also in asthma, whooping-cough, & dyspnea. — *Dose:* 10–20 Ml (0.6–1.3 Ce.). — *Max. D.* 30 Ml (2 Ce.) single; 90 Ml (6 Ce.) p. d.

**Water Blue.** — see **Pure Blue**

**Water Blue 2 BN (& R; 2 R; & 5 BS Merck** (10 Sodium, Ammonium, or Calcium salts of Triphenylrosaniline- & Triphenylpararosaniline-trisulphonic Acids, with more or less Disulphonates. — Blue, lustr. powd. or lumps. — *Sol.* W. w. blue color. — *Uses:* Dye, cotton & silk.

**Water Cherry-Laurel Merck** (1 Water distilled w. fresh lvs. cherry laurel. — 0.1% hydrocyanic acid — Turbid liq.; odor of  $\text{HCN}$ . — Anod.; Sed.; Antispasmodic. — *Uses:* Chiefly as vehicle; also in whooping-cough, asthma affect., dyspnea, &c. — *Dose:* 10–20 Ml (0.6–1.3 Ce.). — *Max. D.* 40 Ml (2.6 Ce.) single; 90 Ml (6 Ce.) p. d.

**Water, Chlorine.** — see **Solution Chlorine Compound**

**Water Distilled Merck.** — Reagent

$\text{H}_2\text{O}$ . — *Tests:* ( $\text{NH}_3$ ;  $\text{NH}_4$  Compounds) 50 Ce. + 10–15 drops Nessler's solut. — no react. — ( $\text{Cl}$ ) 100 Ce. + few drops  $\text{HNO}_3$  + solut.  $\text{AgNO}_3$  — no turb. — ( $\text{H}_2\text{SO}_4$ ) 100 Ce. + 1 Ce.  $\text{HCl}$  (sp. gr. 1.124) + solut.  $\text{BaCl}_2$  — no ppt. ( $\text{BaSO}_4$ ) within 12 hrs. — ( $\text{HNO}_3$ ) overlay 10 Ce. on 5 Ce. solut. diphenylamine — no blue color zone. — (*Res.*) evap. 100 Ce. on W.-bath — none visible. — (*Heavy Met.*; *Ca*) 100 Ce. +: a: aqu.  $\text{H}_2\text{S}$ ; or b:  $\text{NH}_4\text{OH}$ ; or c: ( $\text{NH}_4$ )HS + ( $\text{NH}_4$ ) $\text{C}_2\text{O}_4$  — no react. in any case. — (*Oxidiz.* Subst. (*Organ. Matter, Nitrates, &c.*)) 100 Ce. + 1 Ce. dil.  $\text{H}_2\text{SO}_4$ ; boil; add 1 drop solut.  $\text{KMnO}_4$  (1:1000); boil 3 min. — liq. not decolorized.

*Note.* — For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Water Elder-Flower Merck** (1 Water distilled w. flowers of *Sambucus canadensis*.

**Water Fennel** — see **Phellandrium**

**Water Hemlock.** — see **Cicuta**

**Water, Lead.** — see **Lead Subacetate Solution, Dilute**

**Water-Nut.** — see **Trapa**

**Water Orange Flower, Stronger**

(Triple Orange Flower Water). — By-prod. in

distil. orange fls. for the essential oil. — *Caution.* Keep loosely stoppered w. pledget of purified cotton in a dark place.

**Water Pennywort.** — see **Hydrocotyle**

**Water Pepper.** — see **Polygonum Punctatum**

**Water Rose, Stronger**

(Triple Rose Water). — Water satur. w. volat. oil of rose petals; by-prod. in distil. oil of roses. — *Caution.* Keep in bottles loosely stoppered w. pledget of purified cotton, & in a cool place.

**Water Smartweed.** — see **Polygonum Punctatum**

**Water Cross** — see **Nasturtium**

**Water-glass.** — see **Potassium Silicate**

**Watermelon.** — see **Citrullus**

**Watermint**

Lvs. of *Mentha aquatica*, Labiatae. — *Habit.*: Germany. — *Etymol.*: Fr. Grk. "Mintha," daughter of Coeytus; she was supposed to have been changed into this plant by Proserpine, in a fit of jealousy. "Aquatia," fr. Lat. "aqua," water, i.e., it grows in wet places. — *Constit.*: Volat. oil; tannin. — *Stim.*: Antispasmodic; Carmin. — *Uses*: Colic, flatulence, cholera, & diar.

**Wax. — White. — U. S. P.**

(Bleached Beeswax). — Bleached yellow wax, prepared fr. honeycomb of the bee, *Apis mellifera*, L. Hymenoptera. — Found everywhere in tropical & temperate countries. — *Etymol.*: Fr. Lat. "apis," the bee, fr. Grk. "empis," a giant — the classical name. "Wax," fr. Anglo-Saxon "wax." — Brittle, yellowish-wh. solid; faint, charact. odor; insipid taste. — *Sol.* E., C.; boil. A.; oils; benzene,  $\text{CS}_2$ . — *Melt.* 64–65° C. — Sp. Gr. 0.965–0.975 at 15° C.; (0.950–0.960 at 25° C., U. S. P.). — *Constit.*: Cerin (cerotic acid),  $\text{C}_{27}\text{H}_{54}\text{O}_2$ ; melissic acid,  $\text{C}_{30}\text{H}_{60}\text{O}_2$ ; ceryl alcohol,  $\text{C}_{27}\text{H}_{55}\text{OH}$ ; myricin,  $\text{C}_{16}\text{H}_{31}(\text{C}_{30}\text{H}_{61}\text{O}_2)$ . — *Uses*: Oint., cerates, plasters, &c. — *Techn.*, wax paper, candles, &c.

**do. — Yellow. — U. S. P.**

(Beeswax). — Solid substance prepared fr. honeycomb of the bee, *Apis mellifera*, L. Hymenoptera. — *Habit. & Etymol.*, see preceding. — Yellowish to brownish-yellow solid, soft or brittle subste.; agre. honey-like odor; faint, balsamic taste. — *Melt.* 62–64° C. — Sp. Gr. 0.955–0.967; (0.951–0.960 at 25° C., U. S. P.). — *Sol.* E., C., oils; part. in cold B. or  $\text{CS}_2$ ; complet. sol. in B. or  $\text{CS}_2$  at 25–30° C.; spar. in cold A.; part. in boil. A.; insol. W. — *Constit.* & *Uses*: As of white wax.

**Wax, Carnauba.** — see **Carnauba Wax**

**Wax, Japan**

(Vegetable Wax; Sumach Wax). — A fat expressed fr. the fruit of *Rhus succedanea*, L. Anacardiaceae. — *Habit.*: Japan & China. — Pale-yellow, flat cakes, disks, or squares, w. a greasy

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



feel; somewh. tallow-like, rancid odor & taste.—*Melt.* 53.5–55° C.—*Sp. Gr.* 0.97–0.98 at 15° C.—*Sol.* B., CS<sub>2</sub>, petroleum ether, E., hot A., & alkal. solut.; insol. cold A., W.—*Constit.*: Palmitin (chiefly); 9–13% palmitic acid; stearin; arachin.—*Uses*: Techn., as a substit. for beeswax; wax varnishes; candles; & as ingred. in plasters, ointments, &c.

*Wax, Mineral.*—see **Ceresin**

*Wax Myrtle.*—see **Myrica**

**Wayne's Solution.**—For glucose

Solut. 10 Gm. copper sulphate, 50 Gm. glycerin, & 325 Cc. solut. potass. hydroxide (*Sp. Gr.* 1.14) in W. to 1,000 Cc.—Used like Fehling's solut.—Reduced by glucose on warming.

**Weigert's Acid Fuchsine.**—For staining bacteria  
2% solut. acid fuchsine (Rubin S) in 15% alcohol.

**Weigert's Hematoxylin.**—Nos. 1 & 2

No. 1.—1 Gm. hematoxylin & 10 Cc. A., mixed w. solut. 0.012 Gm. lith. carbonate in 90 Cc. W.  
No. 2.—(a) solut. 0.08 lithium carbonate in 100 Cc. W.; (b) solut. 1 Gm. hematoxylin in 10 Cc. A.—For use 1 vol. b is mixed w. 9 vol. a.—*Uses*: Staining marrow-containing nerve fibers.

**Weigert's Picrocarmine**

Solut. picric acid mixed w. solut. carmine in ammonia; after 24 hrs. acetic acid is added to incipient cloudiness, & 24 hrs. later some ammonia is added.—*Uses*: Same as of Ranvier's picrocarmine.

**Weingärtner's Reagent.**—For coal-tar dyes

Solut. 10 Gm. tannin & 10 Gm. sod. acetate in 100 Cc. W.—*Uses*: For differentiating acid & basic coal-tar dyes; affords a ppt. w. basic dyes.

**Welmann's Reagent.**—For vegetable oils

5% aqu. solut. sodium phosphomolybdate acidulated w. nitric acid.—Reagent gives w. vegetable oils a green color changed by ammonia to blue.

*White Arsenic.*—see **Arsenic Trioxide**

*White Ash.*—see **Fraxinus Americana**

*White Bole.*—see **Kaolin**

*White Fraxinella.*—see **Dictamnus Albus**

*White Gentian.*—see **Laserpitium**

*White Hellebore.*—see **Veratrum Album**

*White Lead.*—see **Lead Carbonate**

*White-Lead Paper.*—see **Lead Carbonate Paper**

*White Oak.*—see **Quercus**

*White Precipitate.*—see **Mercury Ammoniated**

*White Precipitate, Fusible.*—see **Mercury & Ammonium Bichloride**

*White Saunders.*—see **Santalum Album**

*White Vitriol.*—see **Zinc Sulphate**

*Whortleberry.*—see **Vaccinium**

**Wickersheimer's Solution**

12 Gm. potass. nitrate, 25 Gm. sod. chloride, 60 Gm. potass. carbonate, 100 Gm. potass. alum., 20 Gm. arsenic trioxide, & 3,000 Cc. W.—*Uses*: Preserv'g anat. & histological specimens.

**Wiesner's Reagent.**—For lignin

0.5% alcohol. solut. phloroglucin acidulated w. HCl.—*Uses*: For detecting wood fiber in paper, on moistening latter w. reagent, a fuchsine-red color develops if lignin present.

**Wigger's Anesthetic Ether.**—see **Ethyl Chloride Polychlorated**

*Wild Cherry.*—see **Prunus Virginiana**

*Wild Cotton.*—see **Asclepias Syriaca**

*Wild Elder.*—see **Aralia Hispida**

*Wild Ginger.*—see **Asarum Canadense**

*Wild Indigo.*—see **Baptisia**

*Wild Licorice.*—see **Abrus**

*Wild Yam.*—see **Dioscorea**

*Willow, Black.*—see **Salix Nigra**

*Willow, Crack.*—see **Salix Fragilis**

**Wilson's Calcium Chloride Solution**

0.215 Gm. cryst. calc. carbonate diss. in dil. hydrochl. acid, & made w. distil. W. to 1 liter —*Uses*: Standardizing soap solut. for water anal

**Winckler's Reagent.**—For alkaloids

Identical w. Mayer's reagent (*q. v.*).

*Wind Flower.*—see **Pulsatilla**

*Winter Asparagus.*—see **Scorzonera**

**Wintersa**

(Winter's Bark; Magellan Canella; Winter's Cinnamon).—Bark of *Prunus Winteri*, Forst. Magnoliaceæ.—*Habit.*: Central & South America —*Etymol.*: Named for Capt. Winter, who accompanied Sir Fr. Drake through the straits of Magellan (1578).—Quills or channelled pieces, twisted or bent; extern. whitish or silvery, or rusty-brown; intern. dark rusty-brown; intolerable pungent, burning taste; odor terebinthinous.—*Constit.*: Volat. oil; tannin; resin.—*Stim.*; Aromat.; Stomachic; Tonic; Antiper. Specific in scurvy.—*Dose* 30 grains (2 Gm.).

**Winterberry**

(Prinos; Feverbush; Black Alder).—Bark & berries of *Ilex verticillata*, Gray (*Prinos verticillatus*, L.). Ilicaceæ.—*Habit.*: Canada & eastern U. S.—*Constit.*: Bitter principle; resin-tannin.—Astring.; Tonic; Antisept.—*Uses*: Intern., in diarr., dysent., & dyspep.—Extern.,

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Escherine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

in flabby or ill-conditioned ulcers.—*Dose*: Fld. extr., 30-60 M (2-4 Cc.).

**Wintergreen.**—see **Gaultheria**

**Wintergreen, Roundleaved.**—see **Pyrola**

**Witchhazel.**—see **Hamamelis**

**Wolfram.**—see **Tungsten**

**Wolfram White.**—see **Barium Tungstate**

**Wolfsbane.**—see **Aconite**

**Wood Alcohol, Naphtha, or Spirit.**—see **Alcohol, Methylic**

**Wood Fern.**—see **Aspidium Spinulosum**

**Wood Strawberry.**—see **Fragaria**

**Wood Vinegar.**—see **Acid Pyroligneous**

**Woodbine.**—see **Ampelopsis**

**Wool Fat.**—see **Lanum**

**Woorali.** } —see **Curare**  
**Woorari.** }

**Worm-Müller's Solution.**—For glucose  
Modified Fehling's solution, & used like latter.

**Wormseed.**—see **Santonica**

**Wormwood.**—see **Absinthium**

**Wormwood Sage.**—see **Artemisia Frigida**

**Wourali.**—see **Curare**

**Wrightine.**—see **Conessine**

**Wurster's Ozon Paper, Blue.**—see **Tetramethylparaphenylenediamine Paper**

**Wurster's Ozon Paper, Red.**—see **Dimethylparaphenylenediamine Paper**

## X

**Xanthine Merck** (10000  
(Ureous Acid).—Diureid obtained fr. guanine, by nitrous acid; occurs naturally in the animal body.— $C_4H_4N_4O_2$ .—Yellowish-wh. powd.—*Sol.*, sl. in hot W.; readily in acids & in alk. solut.—Decomp. when heated above 150° C.

## Xanthium

(Spiny Clotbur; Thorny Clotbur; Cocklebur).—Herb of *Xanthium spinosum*, L. Compositae.—*Habit.*: Southern Europe; Levant; widely natur. in U. S.—*Etymol.*: Grk. "xanthos," yellow, i.e., the aqueous decoct. was supposed to color the hair yellow (Dioscorides). "Spinosus," spiny, thorny.—*Constit.*: Resin; volat. oil.—Astring.; Styptic. — *Uses*: Diar., dysent. & intern. & extern. hemor.; also used as a remedy in hydrophobia.—*Dose*: Fld. extr., 60-120 M (4-8 Cc.).

**Xanthoxylum (Eclectic)** (30  
Purified alcoh. extr. of prickly-ash bark (*Xanthoxylum*, var. species).—Brown powd.—*Sol.*

A.—Stim.; Diaph. — *Uses*: Chloric rheum. — *Dose*: 1-2 grains (0.06-0.12 Gr.).

## Xanthoxylum. U. S. P.

(Prickly Ash; Toothache Tree; Yellow Wood; Angelica Tree).—Dried bark (& berries, though not official) of *Xanthoxylum americanum* Miller (Northern Prickly Ash, & of *Fagara Clava-Herculis*, L. (Southern Prickly Ash) Rutaceae.—*Habit.*: Canada, south to Virginia & Missouri.—*Etymol.*: Grk. "xanthos," yellow, & "xylon," wood, i.e., the roots of the tree have a yellow color "Americanum," belonging to America. "Clava," club, & *Hercules*, i.e., resemblance of cone-like warts to Hercules' club. — *Constit.*: Resins, xanthoxylone (probably an alkaloid); acrid volat. oil, tannin; sugar. — *Diaph.*; Alter.; Stim.; Counter-irrit. — *Uses*: Syph., neuralg., muscular pains, & pelvic diseases. — *Doses*: Bark: Extr., 5-10 grains (0.3-0.6 Gm.).—Fld. extr., 30-60 M (2-4 Cc.).—*Berries*: Fld. extr., 20-40 M (1.3-2.6 Cc.).

## Xeroform (10

(Bismuth Tribromocarbonate; Tribromphenol-bismuth; Bismuth Tribromophenate).—Approx.:  $Bi_2O_3 \cdot C_{12}H_5Br_3(OH)$ .—Yellow, neut., insol. powd.; odorl.; tastel. — 57-61° of  $Bi_2O_3$ . — *Intest.* Antisept. — *Uses*: Choleric, Asia. cholera, lymph. fever, & inflam. condit. of muc. membr. of intest. — *Dose*: 8-15 grains (0.5-1 Gm.) several t. p. d. — *Max. D.* 90 grains (6 Gm.) p. d. — *Appl.*, as dust. powd. instead of iodof., & in 10-20% oint.

## Xylene Merck (1

(Xylol; Dimethylbenzene [or, -zol]).—Mixt. of ortho-, meta-, & para-xylene extr. fr. coal tar. —  $C_{10}H_{10}$ , or,  $C_6H_4(CH_3)_2$ .—Colorl. liq. — *Boil.* 137-140° C. — *Sp. Gr.* abt. 0.85. — Antiseptic. — *Uses*: Smallpox, troubles of respiration, & dyspep.; also techn. as solvent, & in manuf. azo-dyes. — *Dose* 5-15 M (0.3-1 Cc.) in caps. — *Max. D.* 45 M (3 Cc.) p. d.

## Xylene (Meta-) Merck (10

(Metadimethylbenz[ol]ene; Isoxyl[ol]ene). —  $C_6H_4(CH_3)_2[1:3]$ .—Colorl. liq. — *Sp. Gr.* 0.878 at 0° C. — *Sol.*, v. sl. A. — *Boil.* 139° C. — *Uses, Doses, &c.*: As of preceding.

## Xylene (Meta-) Chloro- Merck (50

(Chlorometaxylol).—By chlorination of meta-xylene in presence of iodine. —  $C_6H_3Cl$ , or,  $C_6H_3(CH_3)_2Cl[1:3:4]$ .—Liq.; does not solidify at -20° C. — *Sp. Gr.* 1.060 at 20° C. — *Boil.* 186.5° C.

## Xylene (Ortho-) Merck (3

(Orthodimethylbenzene [or, -zol]). —  $C_6H_{10}$ , or,  $C_6H_4(CH_3)_2[1:2]$ .—Colorl. liq. — *Sp. Gr.* 0.893 at 0° C. — *Boil.* 142-143° C. — *Uses, Doses, &c.*: As of xylene.

## Xylene (Para-) Merck (25

(Paradimethylbenzene [or, -zol]). —  $C_6H_{14}(CH_3)_2[1:4]$ .—Colorl. liq.; fluid above 15° C. — *Sp. Gr.* 0.862 at 19.5° C. — *Boil.* 138° C. — *Uses, Doses, &c.*: As of xylene.

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Xylenol (Meta-) Merck**

(60

By fusing metaxylenesulphonic acid w. KOH.  
— $C_6H_3(CH_3)_2OH$ - $\alpha$ -[1:3:4].—Colorl. to reddish-brown liq.—*Misc.* A., E.—*Boil.* 211.5° C.

**Xylenol (Meta-) Salicylate**

(Metaxylenolsalol).—Internal Antisep.—*Uses*: Rheum., diarrh., dysent., &c.—*Dose* 2-6 grains (0.12-0.36 Gm.).

**Xylenol (Ortho-) Merck**

(200

By fusing orthoxylenesulphonic acid w. KOH.  
— $C_6H_3(CH_3)_2OH$ - $\beta$ -[1:2:4].—Colorl. to reddish need.—*Sol.* W., A.—*Melt.* 62.5° C.—*Boil.* 225° C.

**Xylenol (Ortho-) Salicylate**

(Orthoxylenolsalol).— $C_{13}H_{14}O_3$ , or,  $C_6H_9.C_7H_5O_3$ .—Neutral, wh. powd.; odorl.; tastel.—Internal Antiseptic.—*Uses*: Rheum., diar., dysent., &c.—*Dose* 2-6 grains (0.12-0.36 Gm.).

**Xylenol (Para-) Merck**

(150

By fusing paraxylenesulphonic acid w. KOH.  
— $C_6H_3(CH_3)_2OH$ - $\beta$ -[1:4:2].—Wh., cryst. mass.—*Sol.* A., E.; sl. W.—*Melt.* 74° C.—*Boil.* 211° C.

**Xylenol (Para-) Salicylate**

(Paraxylenolsalol).—Internal Antisep.—*Uses*: Rheum., diarrh., dysent., &c.—*Dose* 2-6 grains (0.12-0.36 Gm.).

**Xylidine Merck**

(3

(Aminodimethylbenzene [or, -zol]; Aminoxylene [or, -ol]).— $C_8H_{11}N$ , or,  $C_6H_3(NH_2)(CH_3)_2$ .—Yellow liq.; prone to darken.—*Boil.* abt. 215° C.—*Uses*: Techn., in manuf. azo-dyes.

**Xylidine Merck.—Reagent**

(5

$C_6H_3(CH_3)_2(NH_2)$ .—Yellow to yellowish-brown liq.—*Sp. Gr.* 0.981-0.984.—*Boil.* 212-215° C.—*Test*: (*Impur. Insol. in HCl*) 10 Cc. + 10 Cc. HCl (sp. gr. 1.124) + 10 Cc.—perf. clear solut.—*Uses*: In Schiff's reagent for furfural.

*Note*.—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Xylidine (Meta-) Merck.—Asymmetric**

(15

(Ordinary Metaxyldine).—By reduct. of alpha-nitrometaxylene. —  $C_6H_3(CH_3)_2NH_2$ [1:3:4].—Brown liq.—*Sol.* A., E.; v. sl. W.—*Sp. Gr.* 0.918 at 15° C.—*Boil.* 212° C.

**Xyloidin.**—see **Pyroxylin****Xylol.**—see **Xylene****Y****Yam, Wild.**—see **Dioscorea****Yara-Yara.**—see **Methyl Betanaphtholate****Yarrow.**—see **Achillea****Yeast**

Ferment obt. in brewing beer.—Viscid liq., or soft mass; consists of the cells & spores of *Saccharomyces cerevisiae*.—*Stim.*; *Ton.*; *Antisep.*—*Uses*: Typhoid, scurvy, purpura, furunculosis, dysentery, infantile diarrh. Action believed to be due to presence of enzymes or ferments, chiefly zymase, & invertase.—*Dose* 1 oz. to 1 pint (30-500 Cc.) liq.; 1-3 dr. (4-12 Gm.) solid.

**Yellow; Chrome-, Lemon-, Paris-, or Leipzig.**—see **Lead Chromate, Precipitated****Yellow Dock.**—see **Rumex****Yellow Jasmin.**—see **Gelsemium****Yellow Parilla.**—see **Menispermum****Yellow Precipitate.**—see **Mercury Oxide, Yellow****Yellow Puccoon.**—see **Hydrastis****Yellow Saunders.**—see **Santalum Album****Yellow T Merck**

(10

(Resorcinol Yellow; Tropæoline O; Tropæoline R; Chrysoine; Chryseoline; Gold Yellow; Aeme Yellow).—Sod. salt of azoresorcinolsulphanilic acid.— $C_{12}H_9N_2O_5SNa$ .—Brown powd.—*Sol.* A., W. w. reddish-yellow color.—*Uses*: Dyes wool & silk reddish-yellow in acid bath.

**Yellow Wolfsbane.**—see **Aconitum Lycocotnum****Yellow Wood.**—see **Xanthoxylum****Yerba Buena.**—see **Micromeria****Yerba del Pollo.**—see **Commelina****Yerba Maté.**—see **Maté****Yerba Rcuma.**—see **Frankenia****Yerba Santa.**—see **Eriodictyon****Yew.**—see **Taxus****Yohimbé**

(Yohimbé).—Bark of *Corynanthe Yohimbé*, K. Schumann. Rubiaceæ.—*Habit.*: Cameroon district near Kribi.—*Etymol.*: "Yohimbé" is the African name of the plant.—Pieces  $\frac{1}{8}$ - $\frac{2}{5}$  in (3-10 Mm.) thick w. extern. gray-brown corky layer covered w. isolated lichens; numerous longit. & transv. fissures; fracture is yellowish-brown, & short & fibrous, like rough velvet.—*Constit.*: Yohimbine,  $C_{21}H_{27}N_3O_4$ , or  $C_{21}H_{25}N_3O_4 + \frac{1}{2}H_2O$ (?); yohimbenine.—*Uses*: Aphrodisiac.

**Yohimbine Hydrochloride**

$C_{21}H_{25}N_3O_4.HCl$ .—Wh. cryst.—*Sol.*, hot W.—Aphrodisiac.—*Uses*: Impotence, partic. in the neurasthenic form.—*Dose*  $\frac{1}{10}$  grain (0.006 Gm.).

**Youthwort.**—see **Drosera****Yttria.**—see **Yttrium Oxide****Yttrium Merck**

(7500

*Etymol.*: Fr. "Ytterby," the place in Sweden where gadolinite, the mineral in which Ekeberg in 1797 discovered ytterbia, was found, &

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Esarine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



from which the element was isolated.—Yttrium also occurs in xenotim, samarskite & o. rare minerals.—Metal—Y.—Dark-gray powd.—contains a little erbium, but free from earths of cerium group.—*Uses*: Techn., in manuf. incandescent mantles (like o. salts of rare earths—thorium, lanthanum, cerium, &c.).

**Yttrium Acetate Merck** (200)  
 $Y(C_2H_3O_2)_3 + SH_2O$ —Colorl. cryst.

**Yttrium Carbonate Merck** (200)  
 $Y_2(CO_3)_3 + 3H_2O$ —Reddish-wh. to wh. powd.—*Sol.*, dil. mineral acids insol. W.—Contains sm. amt. erbium; free fr. earths of cerium group.

**Yttrium Chloride Merck** (200)  
 $YCl_3 + 6H_2O$ —Reddish-white, transp., deliq. prisms.—*Sol.*, v. eas. W.; more diffic. A.—Contains sm. amt. erbium; free fr. earths of cerium group.—*Cont.* Keep well closed.

**Yttrium Nitrate Merck** (100)  
 $Y(NO_3)_3 + 6H_2O$ —Reddish-wh. cryst.—*Sol.*, v. eas. W., A.—Contains sm. amt. erbium; free fr. earths of cerium group.

**Yttrium Oxide Merck.—Anhydrous** (250)  
 (Yttria).—By ignition of yttrium hydroxide.— $Y_2O_3$ .—Yellowish-wh. powd.—*Sol.*, eas. in dil. mineral acids; insol. W.—Contains sm. amt. erbium; free fr. earths of cerium group.

**Yttrium Sulphate Merck** (100)  
 $Y_2(SO_4)_3 + 8H_2O$ —Sm., reddish-wh., monosymmetr. cryst.—*Sol.*, diffic. in W.—Contains sm. amt. erbium; free fr. earths of cerium group.

## Z

**Zea.—U. S. P.**

(Corn-Silk; Stigmata Maydis).—Fresh styles & stigmata of Zea Mays, L. Gramineæ.—*Habit.*: Found everywhere.—*Etymol.*: Grk. "zao," to live, i.e., used by man & beast to sustain life. "Mays," fr. Lat. "maydis," fr. Spanish "maiz," fr. "mahiz," its native Haytian name.—*Constit.*: Maizenic acid; fixed oil; resin; mucilage.—*Diur.*: Demulc.; Lithontriptic; Alter.—*Uses*: Diseases of the genito-urinary organs & bladder (cystitis, gravel, dropsy, gonorr., incont. urine, &c.).—*Dose* 30–120 grains (2–4 Gm.) us'y as fld. extr.

**Zedoary**

Rhizome of Curcuma Zedoaria, Roscoe. Scitamineæ.—*Habit.*: East Indies.—*Etymol.*: Fr. the Arabic "d'jeduar," Persian "dschadwar."—Usually found as circular disks abt.  $\frac{1}{2}$ – $1\frac{1}{2}$  in. (12–37 Mm.) in diam. &  $\frac{1}{4}$ – $\frac{3}{4}$  in. (6–18 Mm.) thick; orange-brown extern.; reddish-grayish-brown intern.; odor & taste like ginger.—*Constit.*: Resin; volat. oil; starch; mucilage.—*Uses*: Stomachic (like ginger) in dyspepsia & flatulence.—*Dose* 10–30 grains (0.6–2 Gm.).

**Zellweger's Paper**—see **Fluorescein Paper**

**Ziehl-Neelson's Carbol-Fuchsin**

1 Gm. fuchsin & 5 Gm. phenol in 100 Gm. 10% alcohol.—*Uses*: Staining tubercle bacilli, spores.

**Zimphen**

(Sodium Methoxyvanillinamate).— $Na[1-(C_6H_4OCCN)C_6H_4OH]$ —Yellowish-wh. cryst. or minute tablets; flt. odor, latter taste.—*Sol.* W.; dil. A.—Tonic; Digest. Stim.—*Uses*: Gastrointest. atony, dyspeps., &c.—*Dose* 8 grains (0.5 Gm.).—Not adapted f. intraven. inj.

**Zinc Merck. Highest Purity.—Gran., sticks, powder, filings & sheets** (2)

*Etymol.* Zinc was first mentioned by Basilus Valentinus & Paracelsus in the 15th century, but neither mentions from what source the metal was obtained. Their successors, such as Agricola & Mathesius, used the designation "zinc" for zinc ores generally.—Metal.—Zn.—Sticks & gran. metal are bluish-wh. w. cryst. fracture.—*Sp. Gr.* 6.9.—*Sol.*, acids.—*Melt.* 419° C.—Becomes brittle at 200° C., & distils at 1,000° C.—*Uses*: Prepar. pure zinc salts, & in chem. anal.

**do. Merck.—Free fr. Arsenic.—Sticks, granul. & coarse powder, filings, & sheets** (1)

*Uses*: In Marsh's apparatus for detect. arsenic.

**do. Merck.—Powder** (1)

(Zinc Dust).—Mixt. powd. zinc w. 8–10% zinc oxide, & usually w. o. metals. First prod. of zinc distillation.—*Uses*: As reducer (in indigo vats); also w. calcium hydroxide for making hydrogen to be used for balloons; also in paints.

**Zinc Merck.—Reagent.—Highest Purity.—Granulated, Thin Sticks & Thick Sticks** (3)

Zn.—Shining, wh. met.; bluish-gray luster.—*Tests*: (1s) place 20 Gm. in Marsh appar. w. As-free dil.  $H_2SO_4$  (1:5); allow react. to proceed till met. nearly all dissolved—no deposit visible within reduction tube.—(*Impur. Oxidizable by  $KMnO_4$* ) 10 Gm.+60 Cc.  $H_2O$ +15 Cc. conc.  $H_2SO_4$  (sp. gr. 1.84); place in flask provided w. rubber valve—no black flocks should remain; when Zn dissolved, add by drops decinorm.  $KMnO_4$ —not more than 0.1 Cc. decinorm.  $KMnO_4$  should be required up to point when distinct red color supervenes. If more required, titrate the dil.  $H_2SO_4$  (15 Cc. conc. acid+60 Cc.  $H_2O$ ) for purpose of control, but without Zn, w. decinorm.  $KMnO_4$ —(*S; P; &c.*) 1 Gm.+5–10 Cc. dil. As-free  $H_2SO_4$ ; place in narrow test-tube in upper part of which insert a plug of cotton to hold back  $H_2O$  carried off by evol. of H; over mouth of tube place sm. piece filter paper moistened w. 1:1 solut.  $AgNO_3$  & dried; allow react. to proceed in dark place perf. free fr.  $H_2S$ — $AgNO_3$ -paper should show no yellow or black color within 2 hrs.—*Uses*: Forensic analysis, especially for quick & easy

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



determ. arsenic; reducer in determ. Fe, Cu, Pb, & Mo.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Zinc Merck. — Reagent. — Pure. — Granulated, Thick or Thin Sticks, Sheets, Powder, & Filings** (2)

*Tests:* (As) place 20 Gm. in Marsh appar. w. As-free dil.  $\text{H}_2\text{SO}_4$  (1:5); allow react. to proceed till metal all dissolved—no deposit visible in reduct. tube.—(*Impur. Oxidiz. by  $\text{KMnO}_4$* ) 10 Gm.+60 Ce.  $\text{H}_2\text{O}$ +15 Ce. conc.  $\text{H}_2\text{SO}_4$ ; place in flask provided w. rubber valve—no undiss. black flocks, or only v. sl. quant.; add to solut. by drops decinorm.  $\text{KMnO}_4$ —not more than 0.1 Ce. decinorm.  $\text{KMnO}_4$  required to point when distinct red color supervenes.—In addition test Zn powd. for (Cl): 5 Gm. powd.+50 Ce.  $\text{HNO}_3$ +100 Ce.  $\text{H}_2\text{O}$ +solut.  $\text{AgNO}_3$ —not more than slight opalesc. turb.—*Uses:* Reducer in determ.  $\text{AgCl}$ ; testing for iodic acid, and as of preceding.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck. — Reagent. — Arsenic-free. — Granulated, Thick & Thin Sticks, Coarse Powder, & Filings** (2)

*Test:* (As) place 20 Gm. in Marsh appar. w. As-free dil. (1:5)  $\text{H}_2\text{SO}_4$ ; allow react. to proceed till met. alm. compl. dissolved—no deposit visible in reduct. tube.—*Uses:* Particularly for the Marsh test for As.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**do. Merck. — Reagent. — Powder** (1)

(Zinc Dust).—Gray, fine powd.; abt. 90% Zn.—*Tests:* (N fr. Nit. &  $\text{NH}_3$ ) 20 Gm.+20 Ce. conc.  $\text{H}_2\text{SO}_4$  (sp. gr. 1.84)+200 Ce.  $\text{H}_2\text{O}$ ; add 100 Ce. solut.  $\text{NaOH}$  (sp. gr. 1.3); distil off abt. 50 Ce.; collect distil. in receiver cont. abt. 20 Ce.  $\text{H}_2\text{O}$ +2-3 Ce. decinorm.  $\text{HCl}$ ; titrate w. decinorm.  $\text{KOH}$  (methyl orange indic.)—decinorm.  $\text{KOH}$  used up should be within 0.2 Ce. of the acid placed in receiver.—*Uses:* Determ. nitrates & nitrogenous substances; reducer.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Zinc Acetate Merck. — Pure** (1)

$\text{Zn}(\text{C}_2\text{H}_3\text{O}_2)_2 + 3\text{H}_2\text{O}$ .—Wh., monoel. plates; pearly luster.—*Sol.* 2.5 W., 36 A. at 25° C.; 1.5 boil. W., 0.6 boil. A.—*Astring.*; *Emetic.*; *Antisep.*; *Nerv.*—*Uses:* *Intern.*, instead of the sulphate as an emetic.—*Extern.*, collyrium in ophthalmia; inj. in urethritis, gonorr., & otorrhea;

& gargle in sore mouth or sore throat.—*Techn.*, for preserv. wood, as mordant in dyeing, & manuf. glazes in painting on porcelain.—*Doses:*  $\frac{3}{4}$ –4 grains (0.05–0.25 Gm.) 3–4 t. p. d.; emetic, 8–15 grains (0.5–1 Gm.).—*Appl.*, eye-wash, 1–2:1,000 W.; gargle, 5–10:1,000 W.—*Inj.*, 2–5:1,000 W.—*Antid.*, alkali carbonates, tannic acid.—*Incomp.* (zinc salts in general), acacia, alkalies, arsenates, carbonates, cyanides, lime-water, oxalates, phosphates, sulphates, sulphides, veget. astring. decoct's & infusions.

**Zinc Acetate Merck. — Fused** (3)

$\text{Zn}(\text{C}_2\text{H}_3\text{O}_2)_2$ .—Wh., fused crusts.—*Sol.* W., with turbid.

**Zinc Albuminate Merck** (10)

Yellowish scales.—*Sol.*, sl. & incompletely in W.

**Zinc Alum.**—see **Aluminum & Zinc Sulphate**

**Zinc Amalgam Merck** (8)

*Uses:* *Chem.*, reducing agent.—*Techn.*, electric batteries.

**Zinc Arsenate Merck** (4)

$\text{Zn}_3(\text{AsO}_4)_2$ .—Wh. powd.—*Sol.*, acids.—*Antid.*, emetics, stomach siphon, fresh hydrated iron sesquioxide, dialyzed iron, demulcents, &c.—*Caut.* Poison!

**Zinc Arsenite Merck** (3)

$\text{Zn}(\text{AsO}_2)_2$ .—Wh. powd.—*Sol.*, acids.—*Antid.*, As of preceding.—*Caut.* Poison!

**Zinc Benzoate Merck** (4)

$\text{Zn}(\text{C}_7\text{H}_5\text{O}_2)_2$ .—Wh. powd.—*Sol.* W.

**do. Merck.—Fr. natural Benzoic Acid** (6)

$\text{Zn}(\text{C}_7\text{H}_5\text{O}_2)_2$ .—Wh. powd.—*Sol.* W.

**Zinc Biborate.**—see **Zinc Tetraborate**

**Zinc Bichromate.**—see **Zinc Dichromate**

**Zinc Borate Merck** (4)

Amorph. wh. powd.—*Sol.*, acids.—*Uses:* As dust. powd. for wounds, in 1:10 oint., & like zinc oxide in cezema.

**Zinc Bromate Merck** (30)

$\text{Zn}(\text{BrO}_3)_2$ .—Wh., deliq. powd.—*Sol.* W.—*Antisep.*

**Zinc Bromide Merck** (2)

$\text{ZnBr}_2$ .—Wh., hygrosc., cryst. powd.; sharp, metal. taste.—*Sol.* W., A., E., amm.—*Melt.* 394° C.—*Antiepileptic.*—*Uses:* *Intern.*, in epilepsy, in v. dil. solut.—*Dose* 1–2 grains (0.06–0.12 Gm.).—*Mar. D.* 10 grains (0.6 Gm.) p. day.—*Incomp.*, acids, alkaloids; salts of antimony, bismuth, copper, lead, mercury, & silver.—*Caut.* Keep in small, glass-stop. vials.

**Zinc, Butter of.**—see **Zinc Chloride**

**Zinc Carbolate.**—see **Zinc Phenate**

**Zinc Carbonate Merck.—Precipitated** (1)

(Zinc Subcarbonate).— $2\text{ZnCO}_3 + 3\text{Zn}(\text{OH})_2$ .—

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; H=Silver Nitrate; 25=Strychnine; 41=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoscyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

Impalp., wh. powd.—*Sol.*, dil. acids, ammonia water, & solut. ammon. carb. *Med. W. A.*—*Antisept.*, locally *Sol.*—*Uses: Extern.*, wounds, ulc., skin dis. &c.; also fine powder

**Zinc Carbonate Merck.**—Pure. *U. S. P.* (2)

**Zinc Chlorate Merck** (10)

$\text{ZnClO}_4 + 6\text{H}_2\text{O}$ —Colorl., v. deliq. crys. —*Sol.* 0.6 W. *A.* *Melt.* 60° C.

**Zinc Chloride Merck.** Pure, gran. (1)

Butter of Zinc.— $\text{ZnCl}_2$ —Wh. gran., deliq. powd.—*Sol.*, abt. 0.5 W., 1 A., E. at 15° C.; (abt. 0.4 W. at 25° C., *U. S. P.*)—*Melt.* 115° C.—*Alter.*; Antispasmodic; E. clar.; E. sulf.; Preserv.—*Uses: Intern.*, epilepsy, chorea, cecof., syph., &c.—*Extern.*, caustic in nevii, cancerous affect., superabundant granul., gangr., aneurisms, &c.; collyrium in thickened & vascular conjunctiva; & inj. in gonorr.—*Techn.*, in dental cement (w. zinc oxide), preserv. wood, flux for soldering, etching metals, manuf. paper & parchment paper, preserving anatom. specimens, oil refining, disinfecting, cement for metals, & in microscopy for differentiating fibers of silk, wool, & plants—*Dose*  $\frac{1}{10}$ – $\frac{1}{2}$  grain (0.006–0.02 Gm.); *inj.* in urethra, 1:1,000 W.; for bandaging *solut.*, 1:100–500 W.; for eye-wash, 1:2,000 W.; *inj.* in tuberculous joints, 6–20 drops of *solut.* 1:10 W. hypoderm. near the affected parts; for cancer, 50% paste w. rye flour.—*Antid.*, alkali carbonates, preceding water or milk; albumen, anodynes, stimulants, tea, &c.—*Caut.* Poison! Keep well stoppered.

do. Merck.—Fused, sticks, drops, plates (1)

do.—Solution.—*U. S. P.*

50% by weight of zinc chloride in W.— $\text{ZnCl}_2 + \text{aq.}$ —Colorl., astring., sweetish liq.; acid react.—*Sp. Gr.* 1.535 at 15° C.; (1.548 at 25° C., *U. S. P.*)—*Sol.* W.—Disinf.; Antisept.; Astring.—*Uses: Extern.*, dress. for ulc., cancer, & gangr. sores; & as *inj.*, diluted in urethritis & vaginitis.

do.—Crude, dried (1)

Antisept.; Preservative.—*Uses:* Deodorant, disinfect., & embalming material, alone or w. phenol & o. antiseptics.

**Zinc Chloride Merck.**—Reagent.—Dry (2)

$\text{ZnCl}_2$ —Wh. powd.; deliquesce. in air.—*Sol.*, eas. W., A.—*Aqu.* *solut.* acid to litmus paper.—*Tests:* (S *solubility* [*Basic Zinc Chloride*]) 1 Gm. + 1 Cc.  $\text{H}_2\text{O}$  *solut.* clear, or at most only sl'tly turb., & turb. caused by add 3 Cc. *alcoh.* should disapp. on add. 1 drop  $\text{HCl}$  (sp. gr. 1.124).—( $\text{H}_2\text{SO}_4$ ) 10 Cc. 1:10 *solut.* + few drops  $\text{HCl}$  + *solut.*  $\text{BaCl}_2$ —no turb.—(*Foreign Mat.*; *Alkalies*) a) 1 Gm. + 10 Cc.  $\text{H}_2\text{O}$  + 1 Cc.  $\text{HCl}$  + *aqu.*  $\text{H}_2\text{S}$ —no react.; b) 1 Gm. + 10 Cc.  $\text{H}_2\text{O}$  + 10 Cc.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96)—clear *solut.*; add *aqu.*  $\text{H}_2\text{S}$ —pure wh. ppt.; filter; *evap.* *filtr.* to dryness & ignite—no wh'ble res.—*Uses:* Reagent for alkaloids;

dehydrating agent, solvent for cellulose; detect. alk.

*Note.* For complete tests see "Chemical Reagents, Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given

**Zinc Chloride (fused) with Potassium Nitrate Merck** (4)

Mixt. 1 part potass. nitrate & 10 parts zinc chloride, dry—Wh., v. hygrosc. sticks.—*Sol.* W.—*Uses:* Caustic in endometritis.

**Zinc Chloriodide Merck** (15)

Mixt. of zinc chloride & zinc iodide.—Wh. powd.—*Sol.* W.—Antiseptic.—*Uses:* Disinfectant.

do.—Solution

(Nageli's Solution).—Fr. hydrochl. acid w. zinc followed by saturation w. potass. iodide & iodine.—*Uses:* Micro-chemical test for cellulose (blue color), & for tannin (reddish or violet color).

**Zinc Chloriodide Mixture.**—see Behrens' Zinc Chloriodide

**Zinc Chromate Merck** (3)

(Zinc Yellow; Buttercup Yellow).— $\text{ZnCrO}_4 + 7\text{H}_2\text{O}$ .—Yellow powd.—*Sol.* W.—*Uses:* Pigment.

**Zinc Chrysophanate Merck** (30)

Brownish-red powd.—*Sol.*, alkali. *solut.*—Antiseptic.—*Uses: Extern.*, dress. (as 1:10–20 oint.) for wounds, the alkali. secretions of which readily dissolve it.

**Zinc Citrate Merck** (8)

$\text{Zn}_3(\text{C}_6\text{H}_5\text{O}_7)_2 + 2\text{H}_2\text{O}$ .—Wh., amorph. powd.—*Sol.*, sl. W.—Antiepileptic.—*Uses:* As of o. zinc salts in epilepsy.—*Dose* 3–12 grains (0.2–0.8 Gm.) several t. p. d.

**Zinc Cyanide Merck.**—Pure (4)

$\text{Zn}(\text{CN})_2$ .—Wh. powd.—*Sol.*, *solut.* potass. cyanide; insol. W. & A.—*Alter.*; Antisept.; Anthelm.—*Uses:* Chorea, rheum., gastric cancer, whoop-cough, neural., dysmenor., colic, gastralgia, & palpitation & pain in the cardiac region. Small doses at first, & gradually increased.—*Dose*  $\frac{1}{10}$ – $\frac{1}{4}$ –1 grain (0.006–0.015–0.06 Gm.).—*Antid.*, stomach siphon, ammonia, a mixture of persulphate & protosulphate of iron, chlorine inhalation, cold douche, &c.—*Caut.* Poison!

do. Merck (3)

Wh. powd.—*Uses:* Techn.

**Zinc Dichromate Merck** (8)

(Zinc Bichromate).— $\text{ZnCr}_2\text{O}_7$ .—Orange-yellow powd.—*Sol.*, hot W.

**Zinc Diiodoparaphenolsulphonate.**—see Sozoiodole-Zinc

**Zinc Dust.**—see Zinc, Powder

When ordering from your supply house articles which bear the designation **Merck** (see *Preface*, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Zinc-ethyl Merck** (150)

React.-prod. zinc & zinc-sodium w. ethyl iodide.  
— $\text{Zn}(\text{C}_2\text{H}_5)_2$ .—Colorl. liq.; takes fire on contact w. air.—Sp. Gr. 1.18 at 15° C.—Violently decomp. by W.—Boil. 118° C.—*Uses*: Synthetic organic chem.—*Caut.* Very dangerous! Handle & keep w. extreme care. Liable to cause fire.

**Zinc Ethylsulphate Merck** (15)

$\text{Zn}(\text{C}_2\text{H}_5\text{SO}_4)_2 + 2\text{H}_2\text{O}$ .—Clear, colorl., hygroscopic leaflets.—*Sol.* W., A.—*Caut.* Keep well stop'd.

**Zinc Ferrocyanide Merck** (4)

$\text{Zn}_2\text{Fe}(\text{CN})_6 + 3\text{H}_2\text{O}$ .—Wh. powd.—*Insol.* W.—*Alter.*; Antiseptic.—*Uses*: Dysmenor., rheum., chorea, gastralgia, &c.—*Dose*  $1\frac{1}{2}$ -2 grains 0.03-0.12 Gm.) several t. p. d.

**Zinc Fluoride Merck** (10)

$\text{ZnF}_2$ .—Wh. powd.—*Sol.*, sl. in W.

*Zinc, Flowers of.*—see **Zinc Oxide**

**Zinc Formate Merck** (10)

$\text{Zn}(\text{CHO}_2)_2 + 2\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W.; *insol.* A.—*Astring.*; Antisept.—*Uses*: Gonorr., &c.

*Zinc Gallate.*—see **Zinc Subgallate**

**Zinc Glycerinophosphate Merck** (40)

$\text{C}_3\text{H}_5(\text{OH})\text{OPO}_3\text{Zn}$ .—Wh., amorph. powd.—*Sol.* W.; *insol.* A., E.

**Zinc Gynocardate Merck** (40)

Yellow, gran. powd.—*Sol.* A., E., C.; & in acids w. separation of gynocardic acid.—Antiseptic.—*Uses*: As of gynocardic acid in psoria, lichen, pruritus, & o. skin affect.

*Zinc-hemol.*—see **Hemol, Zinc-**

**Zinc Hypophosphite Merck** (5)

$\text{Zn}(\text{H}_2\text{PO}_2)_2 + \text{H}_2\text{O}$ .—Colorl., hygroscopic. cryst.—*Sol.* W.—Antisept.; Astring.; Antispasmodic.—*Uses*: Gastric & intest. catarrhs, chorea, whoop-cough, epilepsy, skin dis., & gonorr.—*Dose*  $1\frac{1}{2}$ -1 $\frac{1}{2}$  grains (0.03-0.1 Gm.) several t. p. d.

*Zinc "Ichthyolsulphonate."*—see **Ichthyol Zinc**

**Zinc Iodate Merck** (25)

$\text{Zn}(\text{IO}_3)_2$ .—Wh., cryst. powd.—*Sol.*, sl. W.

**Zinc Iodide Merck** (6)

$\text{ZnI}_2$ .—Hygroscopic, wh., cryst. powd.; sharp, saline taste.—*Sol.* W., A., & E.—*Melt.*, abt. 416° C.—*Alter.*; Antisept.; Caustic.—*Uses*: Intern., scrof., chorea, syph., &c.—*Extern.*, ulc. tonsils, gonorr., &c.—As caustic, 1:2 solut.; as resolvent in scrofulous enlargements, 2-6:100 solut.; inj. in gonorr., 0.5-1:300 solut.; in scrofulous ophthalmia, as collyr., 1.5:1,000 solut.—Used also in making zinc iodide-starch solut. & paper.—*Dose* 1-2 grains (0.06-0.12 Gm.).—*Caut.* Keep in sm., glass-stop. bottle.

**Zinc Iodide-Starch Paper**

Wh. paper impregnated w. a zinc-iodide & starch

solut.—*Uses*: For detecting traces of free iodine (development of blue color); also ozone.

**Zinc Iodide-Starch Solution Merck.**—Reagent

Colorl., clear, or only sl'tly opalesc. liq.—*Tests*: a: 1 Cc. + 20 Cc.  $\text{H}_2\text{O}$  + 1 drop decinorm. I = intense blue color; b: 1 vol. + 50 vol.  $\text{H}_2\text{O}$  + dil. HCl = no blue color.—*Uses*: Detect. nitrites; indicator.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

**Zinc Lactate Merck.**—Pure (4)

$\text{Zn}(\text{C}_3\text{H}_5\text{O}_2)_2 + 3\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* 52.5 W. at 15° C.; 6 boil. W.—Antiepileptic.—*Uses*: Instead of zinc oxide in epilepsy.—*Dose*  $1\frac{1}{2}$ -1 grain (0.03-0.06 Gm.), gradually increased.—*Max.* D. 10 grains (0.6 Gm.) p. day.

**Zinc Lactophosphate Merck** (12)

(Zinc Phospholactate).—Wh. powd.—*Sol.*, dil. acids.—Antisept.; Astring.; Tonic.—*Uses*: As of zinc lactate, in nerv. diseases.

**Zinc Malate Merck** (70)

$\text{ZnC}_4\text{H}_4\text{O}_5 + 3\text{H}_2\text{O}$ .—Wh., cryst. powd.—*Sol.* W.

**Zinc Monochloracetate Merck** (200)

$\text{Zn}(\text{C}_2\text{H}_3\text{ClO}_2)_2$ .—Wh. powd.—*Sol.*, sl. W.—Antiseptic.

**Zinc Nitrate Merck.**—Pure (2)

$\text{Zn}(\text{NO}_3)_2$ .—Colorl. pieces, w. varying quantities of water.—*Sol.* 0.9 W., A.—*Melt.* 36.4° C.—Escharotic.—*Uses*: *Extern.*, as 50% paste with W. & flour in cancerous affect., nevi, &c.

**do. Merck.**—Commercial (1)

Reddish pieces.—*Sol.* W.—*Uses*: As a mordant in dyeing.

**Zinc Oleate Merck.**—N. F. (8)

React.-prod., zinc acetate & sodium oleate.— $\text{Zn}(\text{C}_{18}\text{H}_{32}\text{O}_2)_2$ .—Dry, wh., greasy, gran. powd.; 13% of zinc oxide.—*Sol.* A., E., carbon disulphide & petroleum benzin.—Antisept.; Stim.; Astring.—*Uses*: *Extern.*, sweaty feet, indol. ulc. & excoriated surf., & in eczema instead of zinc oint. Also insufflation vehicle for o. remed.

**do.**—5%

5% zinc oxide in oleic acid.—Wh., semi-solid mass.—*Sol.*, oleic acid.—Antiseptic.—*Uses*: Oint. w. soft paraffin or petrolatum for skin dis.

**Zinc Oleo-Stearate.**—N. F.

By pptg. zinc acetate, & stearic & oleic acids w. KOH.

**Zinc Orthophosphate, Tribasic.**—see **Zinc Phosphate****Zinc Oxalate Merck** (3)

$\text{ZnC}_2\text{O}_4 + 2\text{H}_2\text{O}$ .—Wh. powd.—*Sol.*, acids & in ammonia water; sl. W.

**Comparative Values** (see Preface, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.



# MERCK'S 1907 INDEX

## **Zinc Oxide Merck.** By wet process. Pure (1

By igniting basic precip. zinc carbonate. —Zinc—Amorph., wh. powd., absorbs carbon dioxide fr. air. —Sol., dil. acid., insol. in am. carbonate, insol. W. —Antisept., Antisept., mildly Sol. Siccative.—*Uses:* Intern., chronic rheumatism, epilepsy, convulsions, chloroform, whooping cough, dysent., &c.—*Extern.,* as powd. or oint. for drying wounds & in skin diseases.—*Dose:* 1-5 grains (0.06-0.3 Gm.).—*Caut.* Keep in air-tight vessels.

do. Merck. —Highest Purity (1

do. Merck. By dry process (1

(Flowers of Zinc).—By combustion of zinc in air or oxygen.—Wh., amorph. powd.—Sol., acids; insol. W. —*Tests:* (As 1 Gm. = 3 Cc. solut.  $\text{SnCl}_2$ —no darker color within 1 hr.— $\text{H}_2\text{SO}_4$ ; Cl 2 Gm. 20 Cc.  $\text{H}_2\text{O}$ ; shake; filter; to filtr. add solut.  $\text{Ba(NO}_3)_2$ —no react.; add solut.  $\text{AgNO}_3$ —at most only slt opalesc. turb. = ( $\text{H}_2\text{CO}_3$ ; Ca; Mg; Foreign Heavy Metals.) 1 Gm. + 10 Cc. dil.  $\text{C}_2\text{H}_3\text{O}_2$ —compl. sol. without effervesc.; add 20 Cc.  $\text{NH}_4\text{OH}$  solut., clear & colorl.; add solut. ( $\text{NH}_4\text{C}_2\text{O}_4$  &  $\text{Na}_2\text{HPO}_4$ —no change; add aqu.  $\text{H}_2\text{S}$ —pure wh. ppt.—(*Impur. Reducing*  $\text{KMnO}_4$  in dil.  $\text{H}_2\text{SO}_4$  solut.) triturate 3 Gm. w. solut. 0.2 Gm. ferric alum (free fr. ferrous salt) in 20 Cc.  $\text{H}_2\text{O}$ ; add 25 Cc. dil.  $\text{H}_2\text{SO}_4$ ; heat gently to dissolve; dil. w. 100 Cc. well-boiled & cooled  $\text{H}_2\text{O}$ , & add a drop decinorm.  $\text{KMnO}_4$ —1 drop should suffice to impart a distinct pink color to solut.—*Uses:* Neutralizing agent, &c.

## **Zinc Oxide Merck.—Reagent (2**

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.

## **Zinc Perborate Merck (10**

Approx.  $\text{Zn(BO}_2)_2 \cdot x\text{H}_2\text{O}$ .—Wh., amorph. powd.—Insol. W.—On long treatm. w. W., yields boric acid.—Antisept.—*Uses:* Dust-powd. for wounds, &c., as it liberates  $\text{H}_2\text{O}_2$ .

## **Zinc-Perhydrol Merck (20**

(Zinc Peroxide).—Mixt. equal parts zinc peroxide,  $\text{ZnO}_2$ , & zinc oxide,  $\text{ZnO}$ .—Wh. powd.—Insol. W.—Liberates hydrogen dioxide on contact w. acids.—Disinf.; Bactericide; Antisept.—*Uses:* Surgery & gynecology, skin diseases, wounds, ulcers, burns, &c.—*Appl.*, in 10% oint. (w. paraffin oint.), & as dusting powd. either pure or w. a little tartaric acid, which causes more rapid evol. of  $\text{H}_2\text{O}_2$ .

## **Zinc Permanganate Merck (7**

$\text{Zn(MnO}_4)_2 + 2\text{H}_2\text{O}$ .—Violet-brown, or almost black, hygros., cryst. gran.; similar in appear-

ance to potassium permanganate. —Sol., gas W. —Antisept., non-irritant. —Antigoron.—*Uses:* Extern., solut. of 1:1,000 of W. in injection in gonorr.; & 1-2:1,000 of W. in eye wash in conjunctivitis. —*Techn.*, all easily oxidizable or combustible substances (sugar, glycerin, alcohol, &c.).

## **Zinc Permanganate Merck. Solution 25% (6**

*Zinc Peroxide*—see **Zinc-Perhydrol**

## **Zinc Phenate Merck (4**

(Zinc Carbolate or Phenolate).—Wh. powd.—Sol., 1 in W & A.—Antiseptic.—*Uses:* Dust-powd. in ring & skin diseases.

## **Zinc Phenolsulphonate Merck. Cryst. or powd. (1**

(Zinc Sulphophenate or Sulphocarbolate).— $\text{Zn(C}_6\text{H}_4\text{SO}_3)_2 + \text{SH}_2\text{O}$ , or,  $(\text{C}_6\text{H}_4[\text{OH}]\text{SO}_3)_2\text{Zn} + [1] \text{SH}_2\text{O}$ .—Clear, colorl., column-shaped cryst., or fine, wh. powd.—Sol., 1.7 W., 1.7 A. at 25° C.; 0.3 boil. W., 0.56 boil. A. (U. S. P.).—Antisept.; Astring.; Tonic.—*Uses:* Extern., astring. stim. to foul ulc. & muc. membr. w. sub-acute inflam.—*Inj.*, in gonorr., 1-2:200 solut.—*Dose:* 1-4 grains (0.06-0.25 Gm.).—*Techn.*, for destroying *Oidium* on vines.

*Note.*—This pure salt exclusively should be used medicinally, as it is the para compound, & is perfectly free from the undesirable ortho compound.

## **Zinc Phosphate Merck (1**

(Tribasic Zinc Orthophosphate).— $\text{Zn}_3(\text{PO}_4)_2 + 4\text{H}_2\text{O}$ .—Wh. powd.—Sol., mineral acids, ammonia water, & solut. ammon. salts; alm. insol. W.—Antiepilep.; Antisept.; Astring.; Tonic.—*Uses:* Specific for nerv. dis., epilepsy, insanity, &c.—*Techn.*, in dental cements.—*Dose*  $1\frac{1}{2}$ -3-5 grains (0.1-0.2-0.3 Gm.) 3 to 4 t. p. d.—*Max. D.*, in acid solut. 15 grains (1 Gm.) p. d.

## **Zinc Phosphide Merck.—Powder (3**

$\text{Zn}_3\text{P}_2$ .—Dark-gray, gritty powd.; faint odor of phosphorus.—Sol., hydrochl. & sulphuric acids w. evolution of hydrogen phosphide; insol. W. & A.—Stimulant to nervous system.—*Uses:* Instead of phosphorus in sexual exhaustion, cerebral affect., mania, melancholia, epilepsy, rachitis, caries, osteomalacia, paralysis, & chronic skin dis.—*Dose*  $1\frac{1}{60}$ - $1\frac{1}{20}$ - $3\frac{1}{4}$  grain (0.001-0.003-0.05 Gm.) in pill, several t. p. d.—*Caut.* Keep in sm., gl.-stop. vials.

## **Zinc Phosphite Merck.—Pure (8**

$\text{ZnHPO}_3 + 2\frac{1}{2}\text{H}_2\text{O}$ .—Gran., cryst. powd.—Sol., cold W., alm. insol. hot W.—Antisept.; Astring.; Tonic.—*Uses:* Nerv. dis.

## **Zinc Phospholactate.**—see **Zinc Lactophosphate**

## **Zinc Picrate**

(Zinc Picronitrate).— $\text{Zn(C}_6\text{H}_4\text{N}_2\text{O}_2)_2 + 8\text{H}_2\text{O}$ .—Yellow, cryst. powd.—Sol. W.—Antiseptic.

## **Zinc Picronitrate.**—see **Zinc Picrate**

## **Zinc Pyroborate.**—see **Zinc Tetraborate**

When ordering from your supply house articles which bear the designation **Merck** (see Preface, p. v)

**Specify MERCK'S** on your orders

because **MERCK'S** products are the **STANDARD** and **COST NO MORE**



**Zinc Pyrophosphate Merck** (4) $\text{Zn}_2\text{P}_2\text{O}_7$ .—Wh. powd.—*Sol.*, acids.*Zinc Rhodanide.*—see **Zinc Sulphocyanate****Zinc Salicylate Merck** (3) $\text{Zn}(\text{C}_6\text{H}_4\text{OHCOO})_2 + 3\text{H}_2\text{O}$ .—Wh. need.—*Sol.* W., A.—*Uses:* *Extern.*, dust. powd. in skin affect.—*Intern.*, as zinc oxide.—Also techn.—*Dose*  $\frac{1}{2}$ –1 grain (0.03–0.06 Gm.).—*Max. D.*  $\frac{1}{2}$  grains (0.1 Gm.) single; 5 grains (0.3 Gm.) p. d.**Zinc Silicate Merck** (3)Wh. powd.—*Insol.* W.**Zinc Silicofluoride Merck** (10) $\text{ZnF}_2 \cdot \text{SiF}_4 + 6\text{H}_2\text{O}$ .—Wh. cryst.—*Sol.* W.*Zinc Sylate.*—see **Zinc Sylate***Zinc Soziodolate.*—see **Soziodole-Zinc****Zinc Stearate Merck** (8) $\text{Zn}(\text{C}_{18}\text{H}_{35}\text{O}_2)_2$ .—React.-prod. zinc sulphate w. potass. or sod. stearate.—Wh., agglutinating powd.; turns darker on expos.—*Insol.* in usual solvents.—*Antisept.*; *Astring.*, without irritant action on mucosa.—*Uses:* *Gonor.*, atrophic rhinitis, &c.—*Appl.*, in substance, or attenuated with eucrophen (30%) or w. menthol (2%) in urethritis & gonorr., & as insuffl. in rhinology; also as dust. powd. for burns (5 zinc stearate & 1 powd. acetanilide).*Zinc Subcarbonate.*—see **Zinc Carbonate****Zinc Subgallate Merck** (12)(Zinc Gallate).—44% zinc oxide, 56% gallic acid.—Greenish-gray, neutral powd.; odorl.—*Insol.* in ordinary solvents.—*Antisept.*; *Astring.*—*Uses:* *Intern.*, fermentative dis. of intest., & in night sw.—*Extern.*, eczema, wounds, gonorr., piles.—*Dose*  $\frac{1}{2}$ –4 grains (0.03–0.25 Gm.) in W. & mucilage.—*Appl.*, pure, or in powd. or oint.**Zinc Succinate Merck** (50) $\text{ZnC}_4\text{H}_4\text{O}_4$ .—Wh. powd.—*Insol.* W.**Zinc Sulphate Merck.—Highest Purity, Medicinal.—Cryst. or gran.** (1)(White Vitriol; Zinc Vitriol).— $\text{ZnSO}_4 + 7\text{H}_2\text{O}$ .—Colorl. cryst., astring., metal. taste; effloresce in dry air.—*Sol.* 0.6 W., at 15°C., 3 G., 0.2 boil. W.; *insol.* A.; (0.53 W. at 25°C., U. S. P.).—*Emetic*; *Astring.*; *Antisept.*; *Escharotic.*—*Uses:* Gastric catarrh, nerv. affect., night sw., gonorr., ophthalmia, skin dis., &c. For wash, gargle, or inj., 0.5–2% solut. As vaginal wash, 1% solut. For painting on eyelids, 1% solut. As eye-wash, 1:1,000; & as oint., 1:10–20.—*Doses:*  $\frac{1}{4}$ – $\frac{1}{2}$  grain (0.015–0.03 Gm.) sev. t. p. d.; emetic, 10–30 grains (0.6–2 Gm.).—*Max. D.* 15 grains (1 Gm.) single; 30 grains (2 Gm.) p. d.—*Antid.*, alkali carbonates, tannin, albumen, demulcents.**do. Merck.—Highest Purity, Medicinal, dried** (1)**Zinc Sulphate Merck.—Highest Purity, fused sticks** (3) $\text{ZnSO}_4 + 2\text{H}_2\text{O}$ .—Wh., light powd.—*Sol.* W.**do. Merck.—Commercial.—Cryst.** (1)*Uses:* Disinfectant.—*Techn.*, as mordant in calico printing, manuf. zinc paints, preserv. wood & skins; w. barium hypochlorite for bleaching paper; siccatif for varnishes & oils, & in fireproof paints.**Zinc Sulphate Merck.—Reagent** (2) $\text{ZnSO}_4 + 7\text{H}_2\text{O}$ .—Colorl. cryst.; slowly effloresce. in dry air.—*Sol.* 0.6 W.; *insol.* A.—*Aqu. solut.* acid to litmus paper.—*Tests:* (Cl) 1:20 solut. + solut.  $\text{AgNO}_3$ —no turb.—(*Foreign Mat.*) 0.5 Gm. + 10 Ce.  $\text{H}_2\text{O}$  + 5 Ce.  $\text{NH}_4\text{OH}$  (sp. gr. 0.96)—clear solut.; add aqu.  $\text{H}_2\text{S}$ —pure wh. ppt.—(*Fe*) 1 Gm. + 20 Ce.  $\text{H}_2\text{O}$  + few drops  $\text{HCl}$  + solut.  $\text{KSCN}$ —no red color.—(*HN*) 5 Ce. 1:10 solut. + 1 drop indigo solut. + 5 Ce. conc.  $\text{H}_2\text{SO}_4$ —blue color should not disapp.—(*NH* *Compounds*) 1 Gm. + solut.  $\text{NaOH}$ ; heat—no  $\text{NH}_3$  vapors evolve. (test w. moist litmus paper).—(*Free H*  $\text{SO}_4$ ) 2 Gm. + 10 Ce. 85% A.; filter after 10 min.; dil. w. 10 Ce.  $\text{H}_2\text{O}$ —should not redden blue litmus paper.—(*As*) 2 Gm. + 20 Ce.  $\text{H}_2\text{O}$ ; introduce into Marsh appar. started w. 20 Gm. As-free Zn & dil. (1:5)  $\text{H}_2\text{SO}_4$ —no deposit visible in reduction tube within  $\frac{1}{2}$  hr.—*Uses:* *Determ.* zinc, &c.*Note.*—For complete tests see "Chemical Reagents: Their Purity & Tests," published by D. Van Nostrand Co., New York. This reagent conforms to the standard therein given.**Zinc Sulphide Merck.—Pure** (2) $\text{ZnS} + \text{H}_2\text{O}$ .—Yellowish-wh. to light grayish-wh. powd.—*Sol.*, acids.**do. Merck.—Commercial** (1)Wh. to yellowish powd.—*Uses:* Pigment in paints, or mixed w. zinc oxide as mineral white.**Zinc Sulphite Merck** (2) $\text{ZnSO}_3 + 2\text{H}_2\text{O}$ .—Wh., cryst. powd.; readily absorbs oxygen fr. air.—*Sol.*, v. sl. W.—*Antisept.*—*Uses:* Skin dis., usually in form of gauze—In aqueous solution for preserving anatomical specimens.*Zinc Sulphocarbonate.*—see **Zinc Phenolsulphonate****Zinc Sulphocyanate Merck** (8)(Zinc Sulphocyanide, or Rhodanide).— $\text{Zn}(\text{CNS})_2$ .—Wh. powd.—*Sol.* A., amm.*Zinc Sulphocyanide.*—see **Zinc Sulphocyanate***Zinc "Sulphoichthyolate."*—see **Ichthyol-Zinc***Zinc Sulphophenate.*—see **Zinc Phenolsulphonate****Zinc Sulphydrate Merck** (10) $\text{Zn}(\text{SH})_2$ .—Wh. powd.; decomp. when kept dry, hence kept under water.—*Antisept.*—*Uses:* *Intern.*, intestinal troubles due to bacterial n.

**Comparative Values** (see *Preface*, page v): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.







HCl, & cold  $\text{H}_2\text{SO}_4$ .—Decomposed by hot  $\text{H}_2\text{SO}_4$  & HF.—*Uses*: Inst. lime in the oxyhydrogen light; also in the manufacture of Welsbach mantles.

**Zirconium Oxychloride Merck** (30)  
(Basic Zirconium Chloride; Zirconyl Chloride).— $\text{ZrOCl}_2 + 8\text{H}_2\text{O}$ .—Wh., silky, long, prismatic (acicular), tetragon. cryst.; astring. taste.—*Sol.*, v. eas. W. & A.

**Zirconium Phosphate Merck** (50)  
(Basic Zirconium Phosphate; Zirconium Orthophosphate).—Approx.:  $5\text{ZrO}_2(\text{P}_2\text{O}_5)_4 + 8\text{H}_2\text{O}$ .—Wh., dense, amorph. powd.—*Insol.* W.

**Zirconium Sulphate Merck** (30)  
Approx.:  $\text{Zr}(\text{SO}_4)_2 + 4\text{H}_2\text{O}$ .—Wh., cryst. powd.—*Sol.*, eas. W.

*Zirconium Tetrachloride*.—see **Zirconium Chloride**

**Zirconium & Ammonium Fluoride Merck** (30)  
(Ammonium Zirconifluoride).— $\text{Zr}(\text{NH}_4)_2\text{F}_6$ .—Wh. cryst.—*Sol.* W.

**Zirconium & Potassium Fluoride Merck** (30)  
(Potassium Zirconifluoride).— $\text{ZrK}_2\text{F}_6$ .—Wh. cryst.—*Sol.*, hot W.; sl. cold W.—*Uses*: Manuf. metallic zirconium.

**Zirconium & Potassium Sulphate Merck** (30)  
Approx.:  $\text{ZrK}_2(\text{SO}_4)_2$ .—Wh., cryst. powd.—*Sol.*, diffie. W.

*Zirconyl Chloride*.—see **Zirconium Oxychloride**

*Zizyphus*.—see **Jujube-Berries**

*Zuckerin*.—see **Benzosulphinide; Saccharin**

*Zylonite*.—see **Celluloid**

*Zymase*.—see **Invertin**

**Comparative Values** (see *Preface, page v*): 1=Cheap Articles; 2=Salol; 3=Guaiacol; 4=Potassium Iodide; 5=Iodoform; 11=Silver Nitrate; 25=Strychnine; 44=Veratrine; 55=Morphine Sulphate; 225=Aconitine; 570=Gold Tribromide; 1111=Eserine Sulphate; 1710=Hyoseyamine; 2565=Homatropine Hydrobromide; 3000 & over=Very Expensive Articles.











RS  
51  
M47  
1907  
C.1  
BMED



